JPRS-UTR-86-014

23 JULY 1986

USSR Report

TRANSPORTATION

FBIS FOREIGN BROADCAST INFORMATION SERVICE

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service (NTIS), Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semimonthly by the NTIS, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS-UTR-86-014

23 JULY 1986

USSR REPORT

TRANSPORTATION

CONTENTS

/12675

MOTOR VEHICLES AND HIGHWAYS

PROPOSAL FOR IMPROVING UNIFIED TARIFFS FOR TRUCK TRANSPORT

Moscow AVTOMOBILNYY TRANSPORT in Russian No 12, Dec 85 pp 42-45

[Article by A. Maksimov under the rubric "Economics, Planning and Administration": "Improving Unified Tariffs in Freight Shipping (As a proposal)]

[Text] In recent years, a number of objective factors have had an effect on the economic results of truck transport operation. Prices for transportation equipment, fuel, lubricants and other operating materials have changed. Expenses for amortization, improving the social and domestic conditions for the laborers, and protecting the environment have increased. This has caused a growth in costs and expenditures that is not always compensated for by increasing productivity and raising the efficiency of the utilization of transportation equipment.

All of this naturally and normally requires the periodic review and improvement of the unified tariffs for freight shipment by truck transport to ensure a normal level of profitability. The last time such work was conducted was at the beginning of the eighties, and as a result the new price list No 13-01-01 "Unified Tariffs for Shipping Freight by Truck Transport" was placed in effect beginning 1 Jan 82 in the Russian Federation and other union republics. In order to ensure a normal level of profitability for trucking enterprises, USSR Goskomtsen [State Committee on Prices] established a maximum level of 5.4 percent on the average for tariff increases (with a raising of costs by 3.9 percent through increased-price factors, as well as the growth of standard profitability within the range of 15-17 percent of cost).

The first years of application of the new tariffs demonstrated that the profitability of freight shipment by the piece (according to cost and income) for the trucking enterprises of RSFSR Minavtotrans [Ministry of Motor Transport] grew from 17.6 percent in 1981 (before the introduction of the new tariffs) to 29.1 percent in 1982 (after their introduction), and reached 27.9 percent in 1983 and 25.2 percent in 1984; that is, it became 1.5 times greater than the standard. Income and profits increased correspondingly. The overall level of rate of income (for 10 ton-kilometers) last year was 9.2 percent higher than in 1981; that is, it turned out to be 1.7 times greater than the established standard for tariff increase.

The basic methodological conditions envisaged that within the limits of the overall amount of growth in the tariffs, the convergence of the profitability levels according to principal traits of tariff differentiation--types of route, distance, territorial disposition of the shipper and recipient, as well as the types of transportation equipment--should be ensured. These methodological purposes, however, turned out to be unfulfilled to a considerable extent.

The comparison of the levels of rate of income for 1981 and 1984, differentiated by distance, types of route and types of transportation equipment, as well as levels of profitability calculated on the basis of actual costs that arose for a trucking enterprise of the RSFSR Minavtotrans, is presented in Table 1. The profitability of shipping is calculated for average class 2 freight, the proportion of which at distances of greater than 50 kilometers [km] exceeds two thirds of the total volume, and the cost is taken without accounting for the enterprises that were earlier a part of Glavmezhavtotrans [Main Administration of Intercity and International Motor-Vehicle Transportation] and are now subordinate to the territorial associations of truck transport.

Analysis demonstrates that tariffs are basically increased for the shipment of freight at short and medium distances; that is, on city, suburban and intra-oblast routes, the profitability of which also considerably exceeded the standard under the previously operative tariffs as well and overall did not require an increase in tariffs. Thus, in the shipment of freight of more than 5 tons at distances of up to 10 km, the tariffs were raised by 25 percent, for 11-20 km--by 20 percent, and for 21-15 [as published] km--by 12 percent. The overall unbalanced increase in tariffs per piece at short distances was the main reason for the unjustified overall growth in the profitability of freight shipping, which on city and suburban routes in 1984 was 2.4 times greater than the standard.

For refrigerated trucks operating at an average distance of 790 km in 1984, tariffs were raised basically for the shipment of freight up to 150-300 km, where it is not practical to use refrigerated trucks, but trucks with insulated bodies. As a result, RSFSR Minavtotrans had a loss of more than 7 million rubles from the refrigerated fleet last year.

The fee for shipping freight on intercity routes, including in refrigerated trucks, at distances of greater than 300 km was reduced to 15 percent. As a result these shipments, and those that earlier had insufficient profitability (two to three times lower than the standard), become unprofitable everywhere. Shipments at distances of more than 300 km by KamAZ-5410 with a semi-trailer, as well as shipments of perishable produce, fruits and vegetables by refrigerated Shkoda-100.42, became unprofitable.

The reduction in the payments for shipping freight on intercity routes carried out in the new tariffs, and the consequent low profitability of this shipping, undermined the economic vested interest of trucking enterprises. As a result, the development of inter-oblast and inter-republic routes in the RSFSR in recent years has been substantially slowed and the established target for their expansion has not been fulfilled. Moreover, the volume of this shipping

carried out by RSFSR Minavtotrans in 1984 decreased by 6.6 percent compared to 1983 and 11.1 percent compared to 1982. The plan for allocating trucks for these shipments over the course of the last three years was not fulfilled one time, and the actual allocation of transportation equipment (in truck tonnage) in 1984 was 3.5 percent less than in 1983 and 6.2 percent less than in 1982. In the first quarter of 1985, 6.8 percent fewer trucks were allocated than in the same period of last year.

Even the specialized truck-transport enterprises that were earlier in Glavmezhavtotrans, whose shipping cost was 36 percent lower than the industry overall in 1984, had overall profitability that was only 11.9 percent, and the standard profitability was achieved at only two trucking enterprises out of fourteen. Overall, the shipment of freight by refrigerated truck was profitable--7.8 percent, which produced approximately 3 million rubles profit. For example, the Rostov Truck Transport Enterprise for Intercity Shipping, which carried out the principal amounts of fruit and vegetable delivery from the North Caucasus to the industrial centers, was not able to compensate for almost 700,000 rubles of losses with refrigerated shipping, and losses totaled almost 300,000 rubles overall last year.

On the basis of existing bookkeeping accountability according to yearly form No 5, statistical forms No 2 and No 4-truck transport, as well as statistical accountability for the operation of refrigerated trucks of RSFSR Minavtotrans for 1981 to 1984, the distribution of shipping and freight traffic volumes was carried out, rates of income were calculated (per 10 ton-km) and the distribution of actual incomes broken down by types of route were carried out (Table 2). Proceeding from the reported total shipping expenditures and cost breakdown according to truck freight rate per piece, composing expenditures by type of transportation equipment and distances based on expenditure standards (according to NIIAT [State Scientific Research Institute of Motor-Vehicle Transportation] data), it is possible to calculate with a sufficient degree of reliability the cost and expenses according to types of routes, which makes it possible to determine the overall financial results and profitability according to it. The results of these calculations for RSFSR Minavtotrans for 1981 to 1984 are also presented in Table 2.

As can be seen from the table, after the introduction of the new tariffs a sharp growth occurred (by 1.7 times) in the profitability of intra-city and suburban shipping (from 24.3 percent to 40.2 percent), as well as a five-time reduction in the profitability of inter-oblast and inter-republic shipping (from 4.5 percent to -16 percent). This occurred first and foremost as a consequence of the incorrect and economically unfounded construction of the tariffs according to the type of truck route and shipping distances. With the introduction of the new tariffs, the distinctions in profitability according to type of route grew still more, and the total losses from inter-oblast and inter-republic shipping for RSFSR Minavtotrans reached almost 99 million rubles. Under the tariffs in effect from 1974 to 1981, the level of profitability (both total and by type of route), resulting over the course of many years, was closer to the standard than under the new tariffs.

It must be noted that the creation of preferential treatment in the tariffs in payments for shipping in large freight lots was correct in principle, since

this makes it possible for the trucking organization to carry out the shipping with more productive transportation equipment. The expansion of the limits of reference of freight to small lots from 2 to 5 tons and the raising of the tariff rates for this freight from 34 to 93 percent turned out to be doubtful and led to a number of instances of the artificial breakdown of freight lots for the purpose of obtaining large incomes; that is, in essence it created conditions for distortions. As a result, after the annual application of point 2 of the "Unified Tariffs..." RSFSR Goskomtsen was forced to revoke this section (on the charges for shipments of small-lot freight on city and suburban routes), even though income from it was already included in the financial plans of the trucking enterprises.

It is also impossible to deem as successful in the new tariffs the gradations of tariff distances that up to 200 km were indicated at 5-km intervals, 10 km up to 300 km, and 25 km at 300-600 km and up, at the same time as in the old tariffs the freight owner paid for a specific precise shipping distance and there were no overpayments through the rounding off of distances.

In the prevailing tariffs (as in the preceding ones, by the way) there is no differentiation that takes into account the difference in expenditures depending on the quality of the shipment carried out, and in particular on timeliness and the preservation of freight, as well as on the regularity of presenting freight for shipment in lots that permit the complete utilization of the carrying and volumetric capacities of the transportation equipment.

Raising the tariffs for truck transport did not fully resolve the issue of the unprofitable nature of trucking enterprises, even though the number of such enterprises declined (per piece shipped) to 11 percent. The profitability of trucks operating on an hourly tariff was raised to 11 percent in RSFSR Minavtotrans, but a third of the trucking enterprises had losses from these shipments nonetheless.

A review of the "Unified Tariffs for Shipping Freight by Truck Transport" was also carried out in other union republics, but a deeper expert evaluation of the expected results made it possible to level off several negative phenomena and obtain more favorable overall results. Thus, for the Minavtotrans of the Moldavian SSR, the profitability of shipping by piece after the introduction of new tariffs in 1983 totaled 21.5 percent, and 15.2 percent for hourly. The principal shortcomings allowed in the Russian Federation in the development of the Unified Tariffs, however, were also repeated in the other union republics.

It is necessary to note that price unity for truck shipping is lacking in our country. With the introduction of the new price lists, the differentiation of tariffs by territorial and administrative features was strengthened further. One and the same volume of transportation work in different union republics is paid for at different rates. Thus, the shipment of 1 ton of 1st-class freight a distance of 600 km in the Russian Federation costs 15 rubles, in the Ukraine 23 rubles, and between them 13 rubles 50 kopecks. The shipment of 1 ton of 1st-class freight (in a lot of 5 tons and up) under canvas cover a distance of 100 km in the Russian Federation costs 4 rubles 55 kopecks, between points in the RSFSR and the Kazakh SSR 4 rubles 26 kopecks, and in the Estonian SSR 3 rubles 40 kopecks, that is, 25 percent cheaper. The price of shipping 1 ton

of 1st-class freight a distance of 25 km in the Russian Federation is 1 ruble 54 kopecks, in Moldavia 1 ruble 74 kopecks, in the Urals 1 ruble 40 kopecks, in Lithuania 1 ruble 30 kopecks and in Latvia and Estonia 1 ruble 16 kopecks.

It is also difficult to explain the distinction in the tariff rates for the delivery of one and the same freight one and the same distance, ascribed in one case to inter-city routes, and in the other to city and suburban shipping (at a distance of 55 km--15 rubles 10 kopecks and 26 rubles 64 kopecks).

The prevailing system of classifying freight inadequately reflects the actual shipping costs. Especially objectionable is the attribution of freight to the 2nd class on a too-large interval of cargo capacity utilization: from 0.71 to 0.99. The freight classification adopted for truck transport requires uniformity with other types of transportation.

It is impossible not to express doubts regarding the grounding of the very allocation of all shipments at distances of greater than 50 km that are carried out within the oblasts, krays and union republics as inter-city. According to some legislative documents, inter-city shipments, as a rule, should be carried out by general-purpose motor transport, but at the same time it is impossible to ban the truck shipment of freight within oblasts, krays and autonomous republics at distances of more than 50 km.

It must be acknowledged that in truck transport, an information and standards base and bookkeeping and statistical accountability on expenditures, costs and incomes practically do not exist. The analysis and evaluation of costs can be made only for all types of shipping carried out according to the per-piece tariffs, and differentiation by distances requires complex calculations.

Thus, the data presented in Table 2 on freight shipping costs in refrigerated trucks was obtained by determining the coefficients for price-increase factors (amortization deductions, the cost of maintenance and repairs, expenditures for the operation of refrigeration apparatus, increased wages to drivers). The total coefficient for the correlation of cost was determined to be on the order of 1.8 (of the cost of freight shipments in all other trucks). Then the actual expenditures by truck transport enterprise on the inter-city routes of Glavmezhavtotrans over 1984 are taken (31.91 kopecks per 10 ton-kms), and according to the actual freight traffic and expenditures their various costs are determined (for refrigerated trucks--42.78 kopecks and for the rest of the fleet--24.04 kopecks). Then according to the difference of the average shipping distances on intra-oblast and inter-oblast routes and the coefficient derived according to the expenditure standards of NIIAT depending on the shipping distance and the types of transportation equipment, the cost of the refrigerated trucks and the remaining fleet is determined for distances of up to 300 km and for greater than 300 km. For RSFSR Minavtotrans overall in 1984, the freight shipping cost for refrigerated trucks (within the limits of the total expenditures according to bookkeeping form No 5) was determined to be on the order of 43.29 kopecks per 10 ton-kms.

It is apparent that the time has come to evaluate critically the entire methodology for constructing the "Unified Tariffs for Shipping Freight By Truck Transport" and place at its foundation the varying profit of various

shipments. The differentiation of intra-republic shipments by type of route should be avoided. Furthermore, a unified structure by size of tariff rates with coefficients that take the conditions of each region into account should be established for the whole country. It is expedient to develop and confirm a standard model of trucking tariffs with a unified technique for determining the cost and productivity of transportation equipment, unified rules for the application of tariffs and a precise definition of the terms "mass," "freight lot," "dispatch" and "commodity weight." Also required is an elaboration of the term "expediting," and it is desirable to exclude from the tariffs and rules for their application a fee for the issue and formulation of transportation documents, leaving the fee for the receipt and handing over of freight by quantity and quality, the timeliness of delivery and the preservation of freight.

The problems of price formation in transportation have still been insufficiently researched. In this regard, it would be expedient to request that the USSR Academy of Sciences and the Central Econometric Institute organize comprehensive research, within the framework of the "The Unified Transportation System of the USSR" theme, on questions of price formation and tariffs for the nation's truck transport with the application of the scientific research institutes of the transportation ministries to this work.

With regard to the fact that a new five-year plan will be approved in the near future, much work must be done on improving trucking tariffs. And this work must be begun without delay.

Table 1

Comparison of the unified tariffs for shipping freight by truck transport according to price list No 13-01-01, prevailing from 1974 and 1982, and the profitability of shipping (according to actual costs resulting at trucking enterprises of RSFSR Minavtotrans in 1981 and 1984 for average 2nd-class freight)

(1) Расстояние перевозок, км	(2) Перевозки грузов партиями свыше 5 т			(3) Перевозки грузов рефрижераторами			(4) Перевозки мелкопартионных грузов						(7) Межреспубликанские перевозки грузов					
							(5) до 2 т			(6) до 5 т			(8) западная зона			(9) восточная зона		
	Изменение тарифов (1982 г. к 1974 г.), % (10)	Фактическая рентабельность, (11) %		Изменение тарифов (1982 г. к 1974 г.), % (10)	Фактическая рентабельность, (11) %		Изменение тарифов (1982 г. к 1974 г.), % (10)	Фактическая рентабельность, (11) %		Изменение тарифов (1982 г. к 1974 г.), % (10)	Фактическая рентабельность, (11) %		Изменение тарифов (1982 г. к 1974 г.), % (10)	Фактическая рентабельность, (11) %		Изменение тарифов (1982 г. к 1974 г.), % (10)	Фактическая рентабельность, (11) %	
		1984 г.	1981 г.		1984 г.	1981 г.		1984 г.	1981 г.		1984 г.	1981 г.		1984 г.	1981 г.		1984 г.	1981 г.
50	111,6	55,1	46,1	116	79	60,6	144,5	130,8	64,2	121,8	103,2	71,8	101,4	12,6	16,9	101,6	40,9	46,1
100	106,9	25	23	111,2	44,8	35,2	174,9	77,4	4,4	135,2	63,7	24,7	100	—6,5	—1,7	100	16,9	23
150	105	12,8	13	109,2	30,3	24,2	178,1	49	—13,9	133,8	39,4	7,2	98,9	—13,4	—7,9	98,8	6,1	13
200	102	4,7	8	105,5	20,9	18,6	173,6	29,6	—23,1	130,4	24,8	—1,6	99,1	—16,1	—11	99	1,7	8
250	99,1	—1,1	5	103,1	14,2	15,3	179	21,6	—28,6	134,2	18,9	—6,8	98,5	—18,4	—12,9	98,2	—2	5
300	98	—4	3	101,9	10,8	13,2	183,1	20,5	—32,2	137	19,4	—10,3	98,5	—18,3	—14,1	98	—4	3
400	90,9	—8,4	7,2	94,6	0,3	10,3	166,6	6,7	—32,6	124,8	7,9	—9	93,4	—21,7	—10	90,9	—8,4	7,2
500	87,2	—14,4	5,6	90,7	—5,2	8,7	155,6	—4,7	—35,6	116,9	—2,1	—11,8	91,7	—24,2	—11	87,2	—14,4	5,6
1000	85,1	—19	2,4	88,5	—10,3	5,4	131,7	—19,3	—35,6	108,5	—14,8	—17,4	87,3	—29,4	—13	79,4	—24,5	2,4
2000	85,4	—19,9	0,8	88,8	—11,4	3,8	119,8	—26,6	—35,6	103,9	—21,2	—20,2	84,9	—32	—14	75,2	—29,5	0,8

Key: 1--Shipment distance, km; 2--freight shipments in lots of over 5 tons; 3--freight shipment in refrigerated trucks; 4--small-lot freight shipments; 5--up to 2 tons; 6--up to 5 tons; 7--inter-republic freight shipments; 8--western zone; 9--eastern zone; 10--change in tariffs (1982 as a percent of 1974); 11--actual profitability, percent.

Table 2

Financial results of shipping (per-piece) operations of the truck fleet of RSFSR Minavtotrans by route type for 1981 and 1984

(1) Виды перевозок	(2)	(3)	(4) 1984 г.	(5)	(6)	(7)	(2)	(3)	(4) 1981 г.	(5)	(6)	(7)
	Грузооборот, млрд. т·км	Среднее расстояние перевозки, км	Выработка на среднесписочную автотонну, тыс. т·км	Доходная ставка (на 10 т·км), коп.	Себестоимость (10 т·км), коп.	Рентабельность (по доходам), %	Грузооборот, млрд. т·км	Среднее расстояние перевозки, км	Выработка на среднесписочную автотонну, тыс. т·км	Доходная ставка (на 10 т·км), коп.	Себестоимость (10 т·км), коп.	Рентабельность (по доходам), %
(8) Междугородные	34,7	245,7	56,9	37,99	37,88	0,3	33,4	238,6	65,2	38,09	35,61	7
(9) В авторефрижераторах	1,9	790,2	40,5	39,48	43,29	—8,2	2	544,4	44,4	40,1	40,72	—1,5
(10) Межобластные и межреспубликанские (без авторефрижераторов)	14,8	920,6	72,3	32,24	38,38	—16	15,9	868,2	72,7	35,31	33,8	4,5
(11) Внутриобластные (без авторефрижераторов)	18	146,7	50,3	42,56	36,91	15,3	15,4	131	62,3	40,7	36,82	10,5
(12) Внутригородские и пригородные	27,8	13,1	24,8	88,99	63,46	40,2	32,1	12	29,6	73,76	59,35	24,3
(13) Перевезено грузовыми сдельными автомобилями (всего)	62,5	27,6	36,1	60,69	49,27	23,2	65,4	23,2	41	55,58	47,26	17,6

Key: 1--Type of shipment; 2--freight traffic, billions of ton-km; 3--average shipment distance, km; 4--output for average listed truck ton, thousands of ton-km; 5--rate of income (per 10 ton-km), kopecks; 6--cost (per 10 ton-km), kopecks; 7--profitability (by income), percent; 8--inter-city; 9--refrigerated trucks; 10--inter-oblast and inter-republic (without refrigerated trucks); 11--intra-oblast (without refrigerated trucks); 12--intra-city and suburban; 13--shipped by freight truck per piece (total).

12821
CSO: 1829/181

RAIL SYSTEMS

PARTY COMMITTEE SCORES RAILWAYS MINISTRY PERFORMANCE

Moscow GUDOK in Russian 2 Apr 86 p 3

[Article: "From Plans To Concrete Action: Meeting of the Ministry of Railways Party Aktiv Discusses 27th CPSU Congress Results and Party Organization Tasks In Implementing Its Decisions"]

[Text] The 27th Party Congress set the country's railroad workers very important tasks. By the end of the 12th Five-Year Plan, the country's mainline trains must be hauling 4.3 billion tons of freight a year. This is nine percent above the 1985 level. Passenger hauling is to be increased by 7.5 percent. Indicators this high can be achieved primarily by improving the organization of all our work, by rapidly increasing labor productivity. Creative use of the experience of the Belorussian system will permit significant improvement in labor productivity, freeing up to 250,000 people for other work in the national economy and saving more than a billion rubles. Success in implementing the plans will depend to a significant extent on how purposefully, efficiently and well-disciplined the branch headquarters operates.

Several days ago, the MPS [Ministry of Railways] party aktiv discussed the results of the 27th CPSU Congress and noted our party organization's tasks in implementing its decisions. A report was given by ministry party committee secretary M. F. Podkolzin.

In preparing for the meeting, the party committee analyzed in depth the activity of communists of the main administrations and of the entire ministry apparatus and concluded that the restructuring of consciousness, work attitudes, styles and methods, is still proceeding slowly, both among leaders and among specialists. It is for precisely that reason, in spite of our appreciable achievements, that very important problems have heretofore remained unsolved.

One such problem is that of passenger shipment organization. As was noted at the meeting, the well-known CPSU Central Committee decree on improving passenger services has been carried out unsatisfactorily. The passenger, railcar, locomotive, workers' supply, subway and other main administrations involved with this work have not even attempted to coordinate their activities. Their technical councils have not met jointly, even once, to solve the pivotal problems. Party bureaus have repeatedly adopted correct resolutions apropos of this, but have not actually done anything to implement them. The result is that delays on passenger trains are now systemic. The technical and sanitation condition

of the cars remains unsatisfactory, and the number of complaints about rudeness and unconscientiousness among conductors and brigade leaders on trains has not decreased. Ticket lines remain long.

More than 90 percent of the work in rail transport is freight hauling. Its quality is indicated by plan fulfillment in terms of products list. The pre-Congress competition demonstrated that tangible successes can be achieved in this work if it is done in a party-minded manner. However, we have not yet succeeded in creating a system which prevents mistakes. The first response to the Party Congress demands for full, prompt, efficient satisfaction of the country's shipment requirements must be the implementation of measures guaranteeing stable, even shipment plan fulfillment for each type of freight and for each enterprise. To do this, however, MPS apparatus communists, the main administration party bureaus, and the party committee members must first of all counteract with efficiency and justified risk such manifestations of unsuitable styles of work as irresolution and over-cautiousness. Well thought-out substantiation of the decisions of the branch headquarters must set an example for the line. Central apparatus directives are only compromised by "scolding" wandering from one paper to another.

The MPS collegium had decided to introduce intensive shipment technology. This is the main thrust of our work. Its implementation will be facilitated by the implementation of 23 target comprehensive branch scientific and technical progress programs. Beginning in April, analyses of their implementation will be a mandatory item on the agenda at each party committee meeting. The goal is to complete the psychological restructuring as quickly as possible, to overcome inertia and delay, to provide prompt and impartial evaluations of all oversights, mistakes and irresponsible actions.

The situation which has evolved in the track systems, STsB [signalization, centralization and block systems] and communications systems is causing serious concern, as the number of equipment malfunctions has not decreased. The question of ensuring equipment reliability is equally urgent for locomotive and car systems and for power engineers. Strangely enough, no one is being held responsible for the losses transport incurs due to equipment malfunctions.

Neither has there been a break-through in the struggle with train operating safety. The sluggishness, complacency and willfulness of comrades Skobelev, commander of the traffic main administration, Skorina, commander of the railcar main administration, and Butakov, commander of the track system, were revealed in the report at the enlarged party committee meeting. The result was unjustified delay in the development and introduction of new systems and equipment to guarantee operating safety.

It was emphasized at the party aktiv meeting that the strategy of accelerating socio-economic development of the branch is inconceivable without radically restructuring economic work. Disregard of economic indicators has led to the loss of 427 million rubles in profit. The situation in this regard is especially unsatisfactory in the main administration for rolling stock maintenance and spare parts production. The appropriate conclusions were not drawn from the 1985 failure. As before, plants continue to fail to meet profit and product net cost plans.

All is not well with the introduction of advanced equipment, either. The main administrations have supported many initiatives and new beginnings and have conducted dozens of leading-experience schools, diverting hundreds of workers from their jobs in the process. To no avail. The valuable initiative of the Southern Railroad on unimpeded access of trains to junctions has not been widely disseminated. The Lvov system experiment in using railcars effectively and that by Moscow enterprises on freight car maintenance and that of the Lyublino and Beskudnikovo stations -- all consigned to oblivion.

Much attention was paid at the meeting to further improving socialist competition, to the selection, training and retraining of cadres, and to their political and ideological work. The question of strengthening implementer discipline was put especially sharply. A check showed that one in every four instructions issued by decision of the collegium and one in every four orders and instructions by the MPS leadership in 1985 was not carried out as scheduled. Monitoring of the implementation of such decisions is absent and worker personal responsibility is low in the main administrations for rolling stock maintenance and spare parts production, capital construction, the railcar system, and others. Supervisory-position communists have been repeatedly criticized at party committee meetings for delay in developing very important guidance documents to replace obsolete ones which have lost their importance. However, the necessary conclusions have not been drawn.

In the locomotive main administration, development of an MPS draft order on radically improving locomotive condition has taken an unjustifiably long time: more than three years since the decision was made. Deputy ministers and party members Nikiforov and Butko and locomotive main administration chief and party member Kelperis have not carried out the collegium's instruction to prepare a draft order on improving locomotive use and locomotive brigade work organization. The instruction was to have been carried out in first-quarter 1983. In the railcar main administration (headed by Comrade Kalashnikov), they have been drafting and coordinating an order on improving railcar condition for three years. Many such examples were given at the meeting of the aktiv. It was noted that such practices are at complete odds with party directives.

The whole course of the party aktiv meeting demonstrated that the restructuring of the work style and methods of the MPS apparatus does not correspond to the demands of the times. Along with sensible and self-critical statements, we also heard from the rostrum speeches in the old mold, self-praise in which verbose reports of the successes achieved are followed by anonymous criticism of "the existing shortcomings."

The report's pointed questions were not responded to with any specificity at all in the statements in the debates by comrades Sidenko, deputy chief of the traffic main administration, Skorina, deputy chief of the railcar system, and Vovchenko, deputy chief of the container shipments and commerce main administration. They tried, as before, to cover up their own mistakes with the old reliable plethora of complaints about suppliers. This indicates that party committee efforts, which have been increased appreciably, have not yet attained the desired goal and that quite a bit more work needs to be done to radically alter the atmosphere of irresponsibility and undemandingness which has evolved over

the years, to finally switch from words and intentions to concrete, purposeful action. These were the goals set in the resolution adopted by the meeting as well.

Ministry of Railways N. S. Konarev and G. F. Yefimov, an instructor in the CPSU Central Committee's Transport and Communications Department, participated in the work of the party aktiv meeting.

11052
CSO: 1829/156

RAIL SYSTEMS

PLANS FOR YAMAL PENINSULA RAIL LINE

Moscow PRAVDA in Russian 27 Apr 86 p 1

[Article by V. Kotov, city of Salekhard: "The Road to Yamal: Beginning of a Biography"]

> [Text] Nine kilometers from Labytnangi, the steel branch line, which connects the polar city with Bolshaya Zemlya, makes a gentle turn. A small railroad hut, snow blackened prematurely for local places, the first thawed patches--that, perhaps, is all.

V. Nak, the chief of the Yamaltransstroy Association, says: "This quiet place will soon become well-known. Our route to the Arctic and to the underground riches of Yamal begins here."

The scope of the work and the courage of the trailblazers of the Tyumen north during recent years are astonishing even the old residents of the local places -- Nabym, Urengoy, Yamburg -- and now in turn Yamal. Grey, ancient and previously inaccessible even to many research expenditions.

Look at a map: The Arctic is the edge of the world. Uninhabited cold tundra where herds of reindeer are driven out to graze during the summer saving them from winged blood-sucking insects and midges. Deposits of useful minerals have been discovered here in the eternally frozen soil. They are such that it is planned to obtain the main growth in natural gas in the country from them -- but it is not simple to get to these places. Nowhere in the world do they extract gas and oil in such zones. There are no roads or population centers here.

The pointer of the association's chief glides over a geographical map on which the route of the Arctic railroad mainline has been plotted with a red pencil.

My interviewee comments: "Obskaya Station, Yamto, Payuta, Neyto, Toboto, and finally -- Vovanenkovskaya. All told, 540 kilometers."

The Arctic mainline is an unusual phenomenon. The builders understand what each kilometer will cost in the permafrost zone and in the salty soil. And how complicated the Arctic relief is! It is only from a helicopter that the tundra seems as level as a table. A 100 large and medium-size bridges with a length of 11 kilometers must be built on the main line. It is necessary to erect an embankment at least two meters high in order to avoid snow drifts -- and there is no dirt located near-by. Questions, questions.... The planners at the Lengiprotrans Institute are still faced with answering many of them.

The first weighty word, however, has been spoken. Track brigades went out first to open up the deposits of the Tyumen north long before the builders and operating staff. The Yamaltransstroy Production Construction and Assembly Association was established at the beginning of the year in the city of Labytnangi. Axes are hammering away at Obskaya Station. Houses are already being assembled from pre-built structures that Ministry of Transport Construction Plants are sending. The fact that a settlement for 2,000 inhabitants is acquiring its outlines before one's eyes can be explained by this. The first street has appeared, a dining hall and bath are being built, and a hostel for the fighting men of the All-Union Shock Komsomol Detachment is being prepared. The chroniclers of the Eighties will have to insert a page in the history of this arctic mainline.

For the time being, Construction Work Train No 619 is part of the association. This work, however, is clearly beyond its capabilities and that is why a decision has been made to organize several more trains. A mechanization administration has been established and cooperating workers have disembarked -- the Sevstroymekhanizatsiya Trust. Leningrad's bridge builders are on the way.

Consists with freight and equipment for the transport builders are continually arriving at the station. The old railroad will soon sharply turn with its new track to the northern part of the Yamal Peninsula. The track builders must lay the first 10 kilometers this year and the remaining ones by June of 1990.

8802
CSO: 1829/188

RAIL SYSTEMS

ER-29 ELECTRIC PASSENGER TRAIN TESTING

Moscow IZVESTIYA in Russian 21 Mar 86 p 1

[Article by IZVESTIYA correspondent Ye. Vostrukhov (Riga) under the heading "From the Scene": "Initial Run of the ER-29"]

[Text] A fundamentally new electric passenger train, the ER-29 developed by the Riga Rail Car Manufacturing Plant, has begun testing.

The elegant blue-grey car gathers speed smoothly. It is already moving at more than 100 km per hour, but the chassis rocks only slightly on its springs. There is no sensation of any jerks or jolts as the consist moves: the train's acceleration and deceleration and its braking are controlled automatically and electronically.

Boris Anikin, senior scientist at the Riga Branch of the VNIIvagonstroyeniya [All-Union Scientific Research Institute of Railcar Building], is the engineer for these tests. He sits at the control panel of the pneumatic shaker...0.15 meter from the new car. The car itself has actually not traveled a single kilometer: innovations are bench-tested...within the confines of the shop. The pneumatically-powered devices set up here can imitate the chassis loads a train will experience while in operation. All the data from the many various tests are transmitted to the laboratory-car, where they are immediately processed by computer.

"Thus far, no major complaints about the design," says Anikin. "In a couple of more days, a consist of the first six cars will leave for test runs in Vilnius."

Each car has a new electrical system and differs externally from all preceding models as well. It is nearly two meters longer, and the passenger doors are much wider. The passengers will find entering and leaving to be more convenient, as the usual rush-hour shoving will disappear and boarding time will be shorter. Each motor coach has 45 more seats. The ER-29 will be able to seat nearly 300 more passengers.

Looking up, there is an uncommonly spacious luggage rack with room for a baby carriage, gardening tools or any other large piece of luggage. In the salon car, I noticed quite a few new furnishings and much new equipment: the incandescent lights had been replaced by fluorescents, which are more economical; the walls were finished in a bright plastic; there are comfortable, cushioned seats.

The locomotive's designers were also concerned about the comfort of the engineers. Instead of a handle, he has controls like a pilot's. The engineer's control panel has no glaring lights which could distract him. The cab is air-conditioned.

"The new electric locomotive is significantly more economical than its predecessors in many of its technical parameters," we were told by Vitaliy Sidorov, its chief designer. "With its more-powerful tractive equipment, the ER-29 develops higher speeds, but its main improvement over the trains previously produced is its use of a deceleration braking system. This braking system, already in use on other trains of ours, returns the energy saved to the main contact circuit, making the train a kind of "power plant" on wheels, as it periodically "feeds" power to the circuit.

One other innovation is the special slippage-control system which reliably protects the wheels from slipping and skidding. This saves both electricity and break-block wear and also reduces wear on the railheads by smoothing out descents and keeping the tracks clear of metallic dust from the brake shoes. In a word, each of the new electric locomotives will save more than 200,000 rubles a year. In terms of its technical parameters, the Riga train is superio to the best foreign models.

The car manufacturing collective was joined in its development by collectives from the "Riga Electrical Machinebuilding Plant" association and the Tallin Electrical Equipment Plant imeni M. I. Kalinin.

11052
CSO: 1829/156

RAIL SYSTEMS

KOLOMNA WORKS TO PRODUCE TEP80 PASSENGER LOCOMOTIVE

Moscow GUDOK in Russian 2 Apr 86 p 1

[Unattributed, untitled article under the heading: "Transport Supported by Industry"]

[Text] The Kolomna Orders of Lenin, Labor Red Banner and October Revolution Diesel Locomotive Manufacturing Plant imeni V. Kuybyshev is the country's largest machinebuilding enterprise. The plant celebrated its 100th anniversary in 1963. Its collective has successfully continued improving diesel equipment.

Back during the first years of its existence, the plant earned a good reputation as a primary transport supplier. In the early years, its products included steam locomotives and tractors, diesel locomotives, electric locomotives and gas-turbine locomotives. Its primary output is diesel equipment. It produces a total of 10 types of diesel locomotives. In the post-war years, it specialized to build passenger locomotives. It series-produces the TEP-60. Having finished manufacturing a reference lot of the TEP70, the plant collective will begin series-producing this diesel locomotive as well.

Plant designers are now working on a new unit, the TEP80, with prototypes to be shipped out for line testing this five-year plan. It differs from existing passenger diesel locomotives in that it is an eight-axle 6,000-hp unit with an axial load capacity of 22.5 tons.

While continuing to improve the designs of its diesel equipment, the collective has paid a great deal of attention to updating its machine-tool equipment and to automating labor-intensive processes. It operates 126 flow lines and automatic lines. Kolomna plant lathe operators were among the first to master the machining of heavy-duty steel crankshafts on NC machine tools, permitting a 33-percent increase in labor productivity during the five-year plan and a reduction in machining labor intensiveness.

11052
CSO: 1829/156

RAIL SYSTEMS

CONSTRUCTION DETAILS OF NEW MARABDA-AKHALKALAKI RAIL LINE

Moscow TRANSPORTNOYE STROITELSTVO in Russian No 2, Feb 86 pp 14-16

[Article by Engineer T. V. Okunkova under the rubric "Track": "Word and Deed"]

[Text] ...2,163 meters above sea level.

At such an altitude, the track was laid, the contact system was installed, the route was opened for the electric locomotives.

This is the 101st kilometer of the new Marabda--Akhalkalaki, Tikmatashskiy Pass--col of the Dzhavakhetskiy Range--railroad, stretching in a meridian direction in South Georgia.

It was difficult for the builders to reach the pass. Now the height has been conquered. The line has been extended to the 116th kilometer.

The transportation construction workers have fulfilled the socialist obligation they adopted in September of 1985, and mobilized manpower and reserves for the early entry into operation of yet another electrified section of the Marabda--Akhalkalaki line from Nadarbazevi to Pokani of 73 kilometers in length.

The fertile mountain chernozem of the kray produces abundant harvests of grains, potatoes and feed crops. The richest pasture land and hayfields facilitate the development of animal husbandry. The Tetritsarskiy, Tsalkskiy, Bogdanovskiy and Akhalkalaki rayons are the leading ones in the republic in the production and sale to the state of animal-husbandry and plant-growing products.

The rail line laid through this land will make it possible to raise all sectors of agricultural production to a higher level.

The new construction has an even greater significance for the industry of the republic. The drawing region of the line has large deposits of natural building materials (tufa, pearlite, basalt and granite). The end stations of the railroad at Bogdanovka and Akhalkalaki are centers of a group of fields of volcanic slag and light-weight aggregates, which the building-materials industry of Georgia suffers a sharp shortage of and must still bring in this raw material.

Upon completion of construction of the line, outgoing freight will prevail in the local freight traffic. Its proportion will total 75 percent according to preliminary estimates.

The leading gradient of the line in the freight route from Akhalkalaki to Marabda was adopted at 16 0/00. It was made uniform with the leading gradient of the existing Tbilisi--Leninakan mainline that is electrified at 3,000 volts, to which the new construction is joined. From here, from the Marabda siding, at a level of 503 meters above sea level, the planners of Kavgiprotrans [Caucasus State Institute for Transportation Planning and Surveying] marked out the beginning of the route.

Project chief engineer G. K. Dzhashi relates that the principal task of the planning was the crossing of the Dzhavakhetskiy Range and the ascent to it.* The matter was complicated by the fact that the northern, and partially the southern, slopes of the range were composed of rocky layers. The inclination of the slopes reached 30 degrees. Under these conditions, it was decided to utilize i-p = 35 0/00 for the non-freight route, thanks to which a considerable reduction in the length of the line was possible and, chiefly, the installation of tunnels was avoided, which are economically unjustified with light freight traffic.

The Marabda--Akhalkalaki line was planned as single-tracked with electric traction for the engines according to the standards of III-category railroads in accordance with SNiP [construction norms and regulations] 11-39-76. The total operating length of the route is 159.4 kilometers. Traction is the same for the entire length. The smallest radius of curvature is 300 meters.

Subunits of the Zaktransstroy [Transcaucasus Transportation Construction] Trust and its subordinate organizations began the construction of the railroad in the spring of 1980.

"The construction was developed on a broad front," relates Zaktransstroy Trust Chief Engineer D. D. Gotsiridze. "The construction and installation train of the trust began preparatory work and began the construction of pipe. They had to install approximately 300: two on average per kilometer of track. Depending on the specific conditions of the terrain, the planners employed corrugated metal or reinforced concrete (rectangular, ovoid, round) pipe."

This crucial task was received by the mechanical columns of Yugstroymekhanizatsiya [Southern Mechanization of Construction Trust]. The total volume of earthwork on the line exceeded 12 million cubic-meters.

It could only be executed in close contact with the employees of the Transvzryvprom [Transportation Construction Blasting Operations] Trust, since approximately half of this volume was rock. The Tbilisi Special

*-see TRANSPORTNOYE STROITELSTVO, 1982, No 12, p 6.

Administration No 78 of Transvzryvprom had qualified workers and ITR [engineering and technical] personnel at its disposal and had the necessary special material and technical resources for carrying out blast-hole drilling.

The bridge builders were the fourth participants in the collaboration from the very first days. The subunits of the Bridge Trust had to build crossings over a multitude of year-round and seasonal flows. There were 26 large and medium bridges alone. The most difficult of them were the reinforced concrete bridge (4x27.6) over the broad Algeti River valley, the steel and reinforced concrete bridges over the steep, winding stone canyons of the Geti (27.6+2x45.8) and Chav-Chavi (115+3x45.8+115) rivers and, finally, the bridge (2x23.6+110+2x23.6) over the most significant water artery in lower Kartli--the Khrami River.

Thanks to the high professional skill of all the participants in the construction process, it became possible to begin track work in 1982 and place in operation 30 kilometers of prepared track to the major rayon center of Tetri-Tskaro at the end of the year.

The track laying was conducted from the Marabda Station railhead. The units of the rail and tie grid were delivered from the unit fabrication base of the Zaktransstroy Trust, located at the Veli Station, and the ballast from the crushed stone plant of the trust at Shulaveri Station.

The section entered service electrified. Merit for this accomplishment belongs to the collectives of the subunits of four trusts--Transelektromontazh [Transportation Construction Electrical Installation], Transenergomontazh [Transportation Construction Power Equipment Installation], Transsignalstroy [Transportation Signals Construction] and Transsvyazstroy [Transportation Communications Construction].

After one year, the completed line was extended by another 15 kilometers. Trains arrived in Nadarbazevi.

The next section of the start-up complex was the longest (73 kilometers) and the most difficult (the pass).

The whole course of construction of the earthen right-of-way was basically determined by the timely and high-quality execution of blast-hole drilling operations. The deputy administrator of the Transvzryvprom Trust, V. M. Mazepus, related that "hard rocky ground of categories 8-9 and 10 predominated, a considerable portion of which was large basalt blocks separated by strata of soft ground, as well as rocky formations broken up by various systems of cracks and average-size blocks."

The blast-hole drilling operations were conducted according to the plan of Mosgiprotrans [Moscow State Planning and Surveying Institute of the State Industrial Committee for USSR Transportation Construction]. In order to raise the quality of the rock blasting, adjustments were made in the size of well charges, which were exploded by the short-delay method with the dispersal of

explosive charges by well depth. In water-filled cuts and during periods of rainfall, powerful water-resistant explosives were used. The construction site was supplied with highly reliable DEM-type electric detonators.

Much unpleasantness was caused by the clearly expressed anisotropy of the mountain rock, as a result of which at a number of cuts (Tsalka Station, Trialesti siding) consisting of hard large-block basalt divided by soft soil strata, the dissipation of the distribution of shock waves caused by the explosion occurred and irregular smashing of the formation resulted. The technology of blast-hole drilling in such geological conditions is constantly being developed.

Beginning in the spring of 1985, the rate of construction of the earthen right-of-way increased sharply. At the disposal of the mechanized columns of Yugstroymekhanizatsiya Trust were 42 excavators, 48 bulldozers and 120 dump trucks.

The organization of the production of earthmoving operations was considerably improved.

The storm of the Dzhavakhetskiy Range was prepared. The most crucial period of the construction had arrived.

The blast-hole drillers successfully conducted operations in the cuts of the 100th and 110th kilometers of the route (depths of 20 and 16 meters and volumes of 350,000 and 102,000 cubic meters respectively). According to the opinion of specialists, the rocky soil in it was crushed so well that the excavators could produce 2-3 times standard output per shift. This made it possible for the mechanical workers to complete earthmoving operations in the pass on October 1.

Afterward came the laying of track and the installation of catenary system supports. At the same time, installation work was completed at five traction substations (the sidings of Bedeni, Trialeti and Pokani and the stations of Tsalka and Taparavani).

Great difficulties arose in the delivery of hopper-batchers and dump-car rotators to the sections with extreme inclinations: the steep slope of the range, strong winds (up to 25 meters/second), storms bearing up to 640 cubic meters/meter of snow, and snow cover depths of up to 2 meters.

Effective measures were adopted in order to increase the amount of diesel engines and accelerate the delivery of ballast and equipment for electrical signal box posts and traction substations.

The construction workers eliminated everything that hindered forward movement, in order that, notwithstanding the great difficulties created by nature in the mountain region, the socialist obligation could be fulfilled.

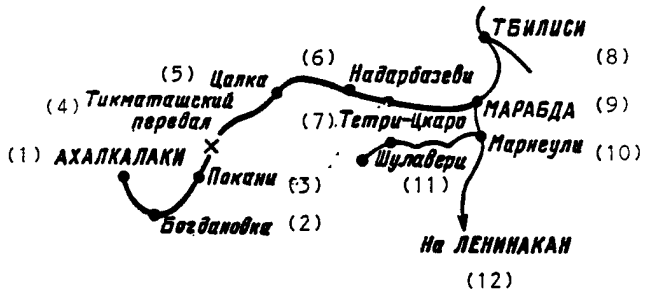


Diagram of Marabda--Akhalkalaki railroad

Key: 1--Akhalkalaki; 2--Bogdanovka; 3--Pokani; 4--Tikmatashskiy Pass; 5--Tsalka; 6--Nadarbazevi; 7--Tetri-Tskaro; 8--Tbilisi; 9--Marabda; 10--Marneuli; 11--Shulaveri; 12--to Leninakan.

12821
CSO: 1829/182

RAILWAYS MINISTRY REAFFIRMS SUPPORT FOR WATCHDOG PRESS

Moscow GUDOK in Russian 20 Apr 86 p 3

[Article: "React Correctly to Criticism in the Press"]

[Text] The collegium of the Ministry of Railways and the presidium of the railroad transport and transport construction workers trade union central committee have examined the tasks that are flowing from the CPSU Central Committee decree about cases of crude administration and the suppression of criticism with respect to the editorial board of the newspapers VOZDUSHNYY TRANSPORT and VODNYY TRANSPORT. The CPSU Central Committee decree pointed out that the directors of the Ministry of Civil Aviation, Ministry of the Maritime Fleet, RSFSR Ministry of the River Fleet, and the central committee of the maritime and river fleet workers trade union had arranged the persecution of their editors instead of supporting the well-founded critical articles in the VOZDUSHNYY TRANSPORT and VODNYY TRANSPORT newspapers. In this regard, illegal measures were used against the editors and other workers of the newspapers under far-fetched pretexts.

The CPSU Central Committee considered these cases of crude administration and suppression of criticism to be a desire to protect the branch from justified criticism for deficiencies in work and to subordinate the activity of the newspapers to narrow bureaucratic and local interests. This position of the ministries and trade union central committees does not correspond to the party policy for an open and true discussion of the problems gathering head in society, for an improvement in exactingness, for the observance of order everywhere, for improving the activity of the press, radio and television, and for an uncompromising struggle against attempts to suppress or ignore criticism.

The Ministry of Railways collegium and the trade union central committee presidium pointed out that the newspaper GUDOK constantly publishes critical material on various questions in the operation and development of railroad transport, the solution of social problems and the indoctrination of railroad workers who are contributing to the elimination of shortcomings, the strengthening of discipline and order and the improvement of the creative activity of branch workers.

The majority of leading workers in the ministry, on the railroads and in enterprises react correctly to press articles and consider them to be a practical

help in improving work and in discovering and eliminating deficiencies. As a rule, measures to eliminate existing deficiencies very rapidly are planned based on the critical articles. The inter-communications of the ministry's administrations and trade union central committee's departments with transportation press bodies have been strengthened.

At the same time, there exist cases where the directors of Ministry of the Railways administrations, especially the main administrations: railroad cars, containerized transport and commercial operations, and the administrations: labor and wages, bookkeeping and finances, of the Alma-Ata, Gorkiy, Western Kazakhstan, Moldavian, Southeastern, and several other railroads, divisions of railroads and enterprises; and individual trade union committees react incorrectly to articles in the press, do not take effective steps to eliminate shortcomings, and send formal replies to the editors.

In trying to avoid responsibility, other directors and trade union workers try to discredit the authors of critical articles and meddle in the affairs of the editorial boards. There are quite a few instances of keeping silent and ignoring criticism in the press. Despite repeated reminders, newspapers and journals at times do not receive replies to their sharp articles. Sometimes, the replies arrive a long time after the publication of the critical article.

Insufficient attention is being paid to improving the typographical and editorial base of the GUDOK newspaper and the working conditions of the road newspapers.

The Ministry of Railways and the trade union central committee have required the directors of Ministry of Railways administrations, trade union central committee departments, railroads, enterprises, and organizations; railroad transport workers trade union road committees; railroad transport workers trade union rayon committees; and enterprise and organization trade union committees to react correctly to critical articles in the press, examine them immediately and take effective steps to eliminate the shortcomings that have been revealed. It is necessary to give a timely and pointed reply to the editors, decisively cut off attempts to suppress and ignore criticism in the press and cases of formalism and red tape, and hold those guilty strictly responsible.

It has also been proposed to strengthen ties with the editorial collectives of the transportation press bodies, meet with journalists often, acquaint them with the most important problems facing railroad transport, and provide help to editorial collectives in the truthful and comprehensive illumination of urgent questions. It is necessary to make wider use of the press, radio and television in illuminating the operation and development of rail transport.

It has been recommended that the editors of the GUDOK newspaper, transport magazines and road newspapers approach more exactingly and with high principles the illumination in the press of questions concerning the acceleration of scientific and technical progress, the improvement of management and management methods, the increase of work quality, the effective use of transport

assets and labor, material and financial resources, and the social development of the collectives. It is necessary to wage an active struggle to strengthen discipline and order and overcome drunkenness, alcoholism and other negative phenomena.

The appropriate directors have been entrusted with examining prior to 1 May 1986 questions concerning the improvement of GUDOK's typographical production capabilities, the putting of the editorial premises into the required order, the supplying of organization and equipment to journalists, the insuring of the dependable operation of telephone communications within the editorial board and with the lines, and the improvement of the journalists living conditions, and with taking the necessary steps. The road chiefs have been given instructions to create appropriate conditions for the work of road newspaper editorial boards and GUDOK's own correspondents.

8802
CSO: 1829/189

RAIL SYSTEMS

INQUIRY SHOWS MISSING PAPERWORK LEADS TO LOST RAILCAR LOADS

Moscow GUDOK in Russian 23 Apr 86 p 3

[Article by R. Ksirov, GUDOK correspondent, Moscow: "The Price of a 'Missed Benefit': Notes From a Meeting of the Moscow and Northern Transport Procurator's Office Collegia"]

[Text] The very fact that a joint meeting of the collegia of the transport procurator's offices of two main lines -- in whose work N. Bazhenov, first deputy procurator general of the USSR, and the directors of the main administrations of the Ministry of Railways, roads, branches, and stations participated-- took place, testifies to the seriousness and importance of the question examined by it: The progress of the struggle against the separation of railroad cars and documents at the stations of the Moscow and Northern railroads.

During February and March of this year, the procurators of these main lines conducted a wide-scale inspection. Scandalous cases of negligence, mismanagement and a criminal attitude toward freight cars and the national good were revealed. In general, it is necessary to say that the bodies of the Northern transport procurator's office instituted disciplinary proceedings against 61 individuals during the last three years who were guilty of allowing documents and freight cars to become separated. Another 36 individuals were warned about the inadmissability of violating the law. In addition, 840 rubles were extracted from guilty persons in 1985. The question, however, arises: Do these measures correspond to the loss caused to the state?

Let us turn to the facts. Two railroad cars -- No 6616454 and No 6524030-- left Yaroslavl-Main Station in October 1985. They were not entered on the full-scale list and they remained at the Bryansk-Lgovskaya Station 53 days waiting for the documents to join them. When train No 3605 was disassembled at the Yaroslavl-Main Station, railroad car No 437465 was sent not on the 47th route-- as it should have been but on the 48th. Having arrived in Bryansk-Lgovskaya, the freight car subsequently stood there for 31 days awaiting documents.

It is difficult to calculate how much these two cases cost the state.

Here is a third case which "cost" more than 3,000 rubles. This was the cost of separating freight car No 6285825 and its transport documents. It happened

at that same Yaroslavl-Main Station in April of last year. The Yaroslavl transport procurator fined Shevakovaya, the chief of the technical office, a months pay as a partial payment of the damages. Lokhmakov, the chief of the Yaroslavl-Main Station was dismissed from the position that he occupied because of numerous violations of the law. The same fate befell Chmykhalov, the chief of Orekhovo-Zuyevo Station.

The Kaluzhskiy Division is another example. A freight car stood idle for two months at the Polotnyanyy Factory Station because of the absence of documents. Only after this period of time, on 21 March 1985, did the division chief send a request to the railroad's administration for permission to sell the freight in the car without documents. Another two months (!) were required for the administration to reply to the division chief's inquiry -- the reply arrived on 15 May. Then, on 11 June (again after almost a month) the chief of the Kaluzhskoye's Division's Containerized Shipment and Commercial Operations Department sent the following telegram to the higher director:

"According to your authorization..., it is impossible to sell the sugar-beet pulp in freight car No 6305708 because the cargo spoiled after it thawed out. When the cargo was analyzed the pulp was unfit for fodder for animals. The cargo has been unloaded from the freight car and buried in a trench. NODKP-14 Banilchenko."

So -- in a trench. And no one is guilty!

Perhaps the examples which have been cited are an accident -- a misunderstanding? Not likely!

During recent months, beginning with the fourth quarter of last year, the number of freight car disconnections, which have led to gigantic losses, has sharply increased. At two stations alone -- Orekhovo-Zuyevo and Yaroslavl-Main -- freight cars, which have arrived without documents, have stood idle for approximately 900,000 freight car-hours. More than 18,000 units of rolling stock have been lost as a result of this. If such demurrage had been tolerated on approach lines, the fine imposed on enterprises would have been more than one million rubles.

If it is possible to reproach some rayon transport procurators for spinelessness in regards to those guilty of freight car and other types of disconnections and for the fact that they are taking a negative position (conducting inspections in a formal manner by only stating the facts of violations and not analyzing the reasons), then what can one think of the position of many station, division and service directors who serenely look at ugliness in the subunits subordinate to them?

Here are several examples of conniving and the absence of control by some directors.

Freight cars loaded with bricks stood idle for more than eight months at the Orel Station; with ore -- in Tula; and with non-ferrous ore -- in Lyublino.

Commercial Act No 3728 was compiled for the pipe that was found at Yaroslavl-Main Station without documents. The cargo remained there until ownership was determined. When it was established, the pipe was covered with snow under which it lay for three months.

A tank car loaded with petroleum stood at the Lobnya Station for more than half a year; a freight car with an unknown cargo -- at the Perovo Station for nine months; a gondola car with coal -- at the Vorkuta Station for six months; and a tank car with motor oil -- in Kineshma for five months. Rolling stock with such critically scarce cargo as cement, petroleum products, grain, and non-ferrous ore have stood idle at the stations of the Northern and Moscow railroads for protracted periods.

Last year, only 19 freight cars without documents stood idle for a total of 2,438 days on the Northern Railroad alone. During this same period, 168 freight cars stood idle for 18,161 days on the Moscow Main Line.

The freight in these cars often either spoils or is plundered. After the receipt of an authorization to sell these goods, many items usually arrive in warehouses where they are often stored for years. Thus, in the warehouses of Yaroslavl-Main Station, 44 shipments have lain since 1984; 18-- since 1983; and one--since 1982. This is only at one station!

Three power section cables have lain for almost five years (!) and a lathe for one year at Tula Station. Production equipment has been at the Shchelkovo Station for three years; an electrical panel -- at Syktyvkar for more than a year; and metal spare parts -- at Yaroslavl-Main Station.

The return of freight cars without documents to the stations for the making-up of trains leads to large losses. The workers at the Yaroslavl-Main Station and Ivanovo Classification Yard on the Northern Railroad; Aleksandrov, Orekhovo-Zuyevo, Losinoostrovskaya, and Bekasovo on the Moscow; and Novki and Gorkiy on the Gorkiy have adopted this harmful practice as a rule. At four stations alone on the Northern and Moscow railroads (Yaroslavl-Main, Ivanovo Classification Yard, Orekhovo-Zuyevo, and Losinoostrovskaya) which the procurators of the two railroads have inspected, 800 freight cars were returned during last year and January of this year. According to approximate calculations, their non-productive run was more than 58 million ton-kilometers. The work of 32 locomotive brigades, hundreds of thousands of kilowatt hours of electrical energy, and hundreds of tons of diesel fuel were expended. All this wasted and useless work is valued at almost 170,000 rubles.

The editorial mail brings alarming news about such cases on other railroads in the network also. Thus, the geography of instances of separation of freight cars and documents -- with all of the sad consequences which flow from it -- is unfortunately not limited to the Northern and Moscow main lines. You can picture to yourself how much material loss is inflicted on the state in our transport because of the separation of freight cars and documents alone!

A legitimate question: What causes them and what is their nature? The initial cause of all the ashes is the lack of control on the part of station and division directors over the actions of technical office personnel and other workers connected with the handling of freight cars and shipping documents. It is possible to mention other reasons also -- the negligence of technical office operators, operators and duty attendants for gravity humps, train make-up men, and shunting dispatches and duty attendants for rolling stock; the non-observance of technology when shunting and breaking-up freight cars; the low qualifications of workers at the gravity humps and in the technical offices; and the unsatisfactory organization of searches for "passport-less" freight cars.

In the lexicon of some station directors, it is at times possible to hear the word combination "missed benefit." We are essentially talking about the economic damage that is caused to transport as a result of the separation of freight cars and their documents. Railroad workers do not trouble themselves with calculating the losses from this since they think that there is no material loss because of the demurrage of freight cars without documents but only a missed benefit.

Truthfully, is this not a strange logic? Is a missed material benefit not really equivalent to a material loss? Is not the price of this "missed benefit" not too high in that one imperturbably states the fact of his negligence and lack of organization?

In the opinion of the railroad workers themselves, the solution to the separation problem would permit the number of embezzlements to be reduced twofold. That is why this situation cannot be tolerated any further. It is necessary to increase responsibility for the handling of freight cars and documents, improve the qualifications of all workers involved in this task, introduce new equipment into the technical offices and into the receiving and dispatch parks, and arrange for their rapid mastery.

In carrying out the necessary measures to eliminate the shortcomings that have been revealed, not only the railroad workers but also the transport procurators can and must play an important role -- as the meeting showed.

When speaking during the meeting, N. Bazhenov, USSR first deputy procurator general; D. Trusov, Moscow transport procurator; V. Zakharchenko, chief of movement services for the capital's main line; and other comrades made a number of proposals to improve department rules and instructions, increase the responsibility of railroads for fulfilling shipment plans, and strengthen procurator supervision.

8802
CSO: 1829/189

RAIL SYSTEMS

CHIEF ON MEASURES TO IMPROVE ALMA-ATA RAILROAD MANAGEMENT

Moscow GUDOK in Russian 6 May 86 p 1

[Article by K. Kobzhasarov, chief of the railroad, Alma-Ata: "Alma-Ata Railroad: Management Style and Methods"]

[Text] First of all, I bring in the name of the railroad's leadership apologies to the GUDOK newspaper editorial board and to all readers for the delay in the reply to the critical article of 4-6 September 1985 which was published under the rubric "Alma-Ata Railroad: Management Style and Methods". The newspaper correctly indicated serious shortcomings in the railroad's operations and embraced a wide range of questions whose solutions required considerable time and effort and a great deal of purposeful activity by the main line's entire collective.

In order to really correct the situation that had been created, a great deal of organizational work was conducted last year. The management style and methods were examined three times during September-November 1985 at expanded railroad meetings in which the directors and foremost workers in production and the party, trade union and Komsomol aktiv participated.

In order to provide practical help in eliminating the shortcomings that had been pointed out in the articles and to improve the operation of the road, Comrades Golubchenko, Shalabayev, Gaynutdinov, Samdetov, Omarov, and Troshkin, deputy chiefs of the railroad; and the directors of the leading services were sent on business to the divisions during September-October.

An expanded technical and economic council of the railroad, which examined the decision of the Ministry of Railways collegium decision "On the Unsatisfactory Work Style and Methods on the Alma-Ata Railroad", was convened in December 1985. The directors of the services: movement -- Comrade Dzheksenev, locomotive -- Comrade Shalukhin, freight car -- Comrade Nurmanbetov, and track -- Comrade Mukhametzhanov; and divisions: Chimkentskoye-- Comrade Salykbayev, Dzhambulskoye-- Comrade Samenov, Alma-Atinskoye-- Comrade Mukhamedgaliyev; and others were subjected to sharp and highly principled criticism in the council. Comrades Shalabayev, Nikitin, Omarov, Sambetov, and Troshkin were severly singled out for their insufficient exactingness and slow reorganization of work.

The work with personnel was analyzed in detail at a meeting of railroad, service, division, and a number of line enterprise directors and personnel department workers. The mistakes, which have occurred in the selection, indoctrination and assignment of leading personnel and cases of using service position and appointing leading workers without the necessary study of their business and moral qualities, were discussed. Special attention was paid to strengthening indoctrinational work in work collectives and to improving discipline.

Chiefs of services: freight car -- Comrade Nurmambetov and movement--Comrade Dzheksenev, were severely reprimanded for the mistakes that they had allowed in their work and for the low level of their leadership. Division chiefs: Chimkentskoye-- Comrade Salykbayev and Alma-Ata-- Comrade Mukhamedgaliyev, were called to account.

Comrade Kaymoldayev, who was subjected to sharp criticism in the article, was dismissed from his position as deputy chief of the passenger service and sent to the Dzhambulskoye Division in order to use his specialty in ordinary work. Comrade Sporysheva, the director of School No 26 at Dzhambul Station, was removed from her position.

The question of leadership style and methods was also examined by the party organization of the railroad's administration. A general party meeting of communists in the railroad's administration was held in September of last year. The meeting paid attention to the serious shortcomings in work style and methods and demanded a radical reorganization in the activity of the railroad's headquarters commanders.

Later, ways to improve work style and methods and to eliminate the existing shortcomings, which had been pointed in GUDOK's articles, were discussed during a meeting of the party committee of the railroad's administration. Reports were heard from the secretaries of the service party organizations: movement, locomotive, track, and containerized and packaged shipments. Comrade Shalukhin, the chief of the locomotive service,was reprimanded for the serious shortcomings in his management of the locomotive pool.

The newspaper rightfully criticized the shortcomings in the operational work of the Dzhambulskoye Division and the Dzhambul Locomotive Depot. Measures were adopted to disperse the diesel locomotive pool and to accelerate the mastery of the capacities of the new TR-3 routine repair workshop and others. As a result, the planned development of repairs was restored, the excessive runs of diesel locomotives were significantly reduced, and the demand on the locomotive park was more fully satisfied at the Dzhambul Depot. Thanks to the decrease in demurrage, the percentage of broken down diesel locomotives was reduced by almost twofold during the first quarter at the depot. The plans for all types of routine repairs are being fulfilled. The productivity of the locomotives has increased by 35.2 percent when compared with the first quarter of 1985. The Dzhambulskoye Division has restored its maneuverability.

However, the dependable operation of the diesel locomotive pool has not been assured everywhere on the railroad and shortcomings in the maintenance of the technical assets of other branches of the economy have not been eliminated. Considering this, a complex plan for accelerating scientific and technical progress, intensifying production, making broad use of progressive experience, and significantly increasing the railroad's work effectiveness during 1986 has been developed and approved for the railroad.

As a result of the great deal of organizational work that has been conducted, the railroad's collective fulfilled the state plan and its socialist obligations during the first quarter based on all indicators. The labor productivity target was exceeded by three percent. Shipping costs were reduced by 3.9 percent. A total of 712,000 rubles above the planned profit were obtained. The movement schedule of passenger and freight trains began to be observed better. There are no "abandoned" consists on the railroad and the unhindered receipt of trains at all external junctions and within the railroad is assured. The number of violations of the prescribed working and rest conditions of locomotive brigades has been reduced 4.5-fold.

The use of rolling stock has been significantly improved: The freight car productivity target has been exceeded by 6.9 percent, freight car turnover has been speeded up by 13.9 percent, and the district speed has grown by 11.2 percent. Demurrage under one freight operation has been decreased by 18.8 percent. The average daily productivity of a diesel locomotive has grown by 1.5 percent and the average daily run by 4.3.

We understand that we still have quite a few deficiencies and unused reserves. That is why we are persistently seeking to improve the role and importance of the human factor and why we are intensifying the struggle against any manifestations of unconsciousness, dishonesty and any type of abuses in accordance with the requirements of the April 1985 CPSU Central Committee Plenum and the 27th party congress.

8802
CSO: 1829/189

RAIL SYSTEMS

PROGRESS, PROBLEMS OF RAIL SERVICE IN WEST SIBERIAN OIL AREA

Moscow GUDOK in Russian 11 May 86 p 2

[Article by V. Delyukin, a correspondent in the Ministry of Petroleum Industry Press Center, Nizhnevartovsk: "Facets of Cooperation: Present and Future Prospects For the Transport Servicing of Northern Siberia's Oil Regions"]

[Text] The attention of the entire country is now rivetted on western Siberia's oil deposits. It is here that the most important bases for solving the energy program are located. The rhythm of the work in the oil fields and the strict policy of speeding up the development of new deposits -- it has been decided to open up 14 of them ahead of time during the first six months -- testify to the positive changes that have been achieved in the production activity of the oil and gas extraction administrations.

The report that western Siberian oil workers had achieved a high frontier -- their average daily extraction had moved past a million tons -- was happy news.

The railroad workers,who insured high rates of growth in the shipment of equipment, special equipment, construction materials, and other cargo for the Glavtyumenneftegaz enterprises, also deserve credit for the success of the oil workers.

A. Aliyev, chief of the Glavtyumenneftegaz's shipment organization administration, cites instances of a business-like and creative solution to the speeding up of freight deliveries by the Sverdlovsk Railroad workers. One track still operates from Tyumen to Tobolsk. Urgent goods were piling up here. Having adopted advanced methods, the railroad workers increased the through-put up to four pairs of trains a day above the target.

During especially intense times, the oil workers once or twice a week select freight cars according to the type of cargo with instructions for the number of freight cars, the type of cargo and the destination station.

The oil workers can receive and unload up to 800 freight cars a day. At the largest production association -- Mezhnevartovskneftegaz -- above-norm demurrage of the rolling stock was reduced threefold during the first quarter

when compared with the same period of last year. This was also the result of business-like cooperation with the railroad workers.

The effectiveness of the business-like partnership between the oil workers and the railroad workers is especially noticeable in the example of the large Megionskaya Production Technical Servicing Base and Servicing Complex No 2. A total of 5,879 freight cars were delivered here during the first quarter and 4,465 of them were for the Nizhnevartovskneftegaz Production Association. The average daily unloading here grew sharply and rolling stock demurrage sharply decreased. V. Myasnikov, the chief of the base, points out that they have been recently receiving accurate and regular information on the arrival of freight cars with their cargo listed from the station of Surgut. This permits them to prepare in a timely fashion for the operation of the unloading line and equipment.

The smoothness in the arrival of oil products for loading and their timely dispatch have had an effect on improving the operation of the base. An additional track for receiving and surrendering freight cars and a dead-end siding for unloading salt have been constructed. Whereas one diesel locomotive operated here last year, now a second one has begun functioning. The cement warehouse, where more efficient pneumatic pumps and vertical reservoirs for receiving liquid chemicals have been installed, has been reconstructed. The vehicle thoroughfares and cargo areas have been asphalted. Replacements for loading and unloading operation foremen have been trained with the help of the railroad workers.

A branch line to the Central Pipe Base, which is located on the Vakh River, was commissioned in January of this year. Hundreds of freight cars with pipe, spout equipment and cement are sent here each month. Several freight spur lines are being laid from the main track at accelerated tempos.

Nevertheless, the transport problems of this region have not been completely solved. The accelerated development of the railroad junction is required.

For example, the fact that the Varyegganneftegaz Association still has only one branch line with a length of 200 meters causes alarm. You see, the Varyegan people are receiving a larger amount of cargo. Sometimes 30-40 freight cars a day arrive with small houses but they cannot receive them and the freight cars stand idle awaiting their turn for unloading. Plans exist to expand the branch line but there are no shop drawings as yet. Filling operations have already been conducted in the area and gantry cranes have arrived. It remains for the Varyegan people to force the work so that they will be able to correct the situation in the summer.

The Nizhnevartovskaya GRES (State Regional Electric Power Station) is being built 30 kilometers from the city. The first electric power, which the oil workers are expecting, should arrive next year. Up to 300 loaded freight cars arrive every day at the Nizhnevartovsk-1 Station for the construction site. A branch railroad line is required in order to deliver them to the GRES more rapidly, but it does not exist and when it will is unknown. The power engineers free their freight cars slowly and the cargo is transported by motor vehicle.

The construction of approach lines to the oil worker's industrial zone, house-building center and airport base is planned for the Nizhnevartovskiy junction. Here, it is planned to put into operation the large Stroitelnaya Station from which a branch line will extend to the river port. The question of its construction has already been discussed twice in the USSR Gosplan. The Ministry of Railways and Ministry of Petroleum Industry have been directed to complete the project and carry out the construction of the railroad line. This, however, has still not been done. Cargo for the port is transported by motor vehicle.

It is also necessary to point out another problem that is important to the railroad junction. One construction work train -- No 227-- is operating here still. In the opinion of specialists, it is not capable of assuming the entire amount of forthcoming work upon itself. A request has been sent to the Ministry of Transport Construction to assign another construction work train. The customers have the money and the documents also, but the contractor does not have sufficient production forces to accelerate the expansion of the railroad junction.

The question of establishing industrial railway transportation enterprises (PPZhT) also disturbs the oil workers, power engineers, builders, and aviators to whose address cargo is sent on spur lines by the railroad. How do things stand with this? M. Temin, chief of the department for developing and establishing new enterprises in the Ministry of Railways Industrial Railway Transportation Main Administration, replies: "This year, industrial railway transportation enterprises will be commissioned only in Tyumen and Surgut. There are not sufficient material and technical resources to organize such enterprises in Nizhnevartovsk and Urengoye. Their establishment is planned for 1987-1988."

It is a flat answer. But meanwhile? Meanwhile the Nizhnevartovskneftegaz oil workers are paying a heavy fine for the demurrage of freight cars -- not only they but also other enterprises and organizations that use the association's approach lines. The oil workers do not have the repair base or required locomotive pool.

More than 100 clients use the services of the Nizhnevartovskiy railroad junction. As they say, there are many hands but there is no single master. The establishment of industrial railway transport enterprises would be an effective measure for the smooth and planned delivery of the ever-growing amount of cargo for the western Siberian oil fields and another step in the business-like and creative cooperation between the oil workers and railroad workers.

8802
CSO: 1829/188

RAIL SYSTEMS

GLAVBAMSTROY CHIEF ON BAM CONSTRUCTION PROGRESS

Moscow GUDOK in Russian 13 May 86 p 1

[Interview with Ye. V. Basin, Glavbamstroy chief and deputy minister of transport construction by TASS correspondent V. Biryukov at Tynda, Amur Oblast; date of interview not given]

[Text]"Place the entire length of the Baykal-Amur Railroad Main Line into permanent operation...."

Ye. V. Basin, Glavbamstroy chief and deputy minister of transport construction, talked with a TASS correspondent about the tasks of the builders' collective during the present five-year plan.

Yefim Vladimirovich says: The five-year plan's starting program is an extensive one. We are faced with mastering more than a third of the capital investments in the overall cost of the main line. This means the electrification of a 300-kilometer section from Severobaykalsk to Taksimo and the putting into permanent operation of almost 1,600 kilometers of track on the main line's Western and Eastern arms where now only the work movement of trains is being carried out. Dozens of well-built modern settlements and cities with social and everyday living units and large station complexes must be built on this section. In a word, we must hand over to the operators a road that has been constructed with a consideration for the latest achievements in science and technology.

Whereas the building of the railroad was a highly mechanized production line process, the industrial and civilian construction -- a task which is no less labor-intensive -- has a broader spectrum of work and a more complicated list of deliveries. Not only the difficult climate conditions but also the enormous extent of the construction and the absence of powerful construction industry bases in the BAM region complicate the task.

We began in good time to retrain personnel and prepare the necessary equipment and gear and we attuned the people to that same selfless work that they had demonstrated when building the railroad line; however, we did not consider a number of factors ....

[Question] Did not G. S. Kostenko, a Tsentrobamstroy Trust bricklayer and installer, talk about them in her presentation at the 27th party congress?

[Answer] Quite correct. Galina Savvateyevna raised the most painful of our questions at the congress. During the initial stage of the construction of the main line, a serious mistake was made when -- relying on the enthusiasm of youth, we began to carry out our main task -- the building of the line -- practically without any preparation and from a halt. The shortage of housing; social, cultural and everyday living amenities; and construction industry bases flowed from this. Meanwhile, people became adults and acquired families and children.... The failure to provide well-built modern housing with all amenities and children's institutions is one of the main reasons for the growth in personnel turnover.

It is necessary to take urgent measures to overcome the consequences of our own lack of foresight. We properly "began" with Tynda at the beginning of this year; the situation is especially difficult here. The construction of a 150-apartment building has been started and we have handed over a kindergarten and two nine-story youth dormitories. Houses of the container type, which are produced by an enterprise erected using BAM resources in Nizhneudinsk, would help to substantially accelerate the opening up of the region. Only where are they sending its products that are intended for our severe climate -- even to the country's south and not only to the main line!

Many items and structures are brought to the other end of the world because of the weakness of the construction industry bases. The irregularity of deliveries is hindering the introduction of the brigade contract and leads to wasted time and-- as a consequence -- to rush work.

The problem of reducing the percentage of manual labor is seriously arising. As the decisions of the congress require, a shift from extensive work methods to intensive ones is necessary. Here is one example: We used panels for internal partitions as an experiment in the building of the locomotive depot in Severobaykalsk. The innovation saved the builders from laying a half million bricks and finishing work. Using this, we intend to achieve the effective intensification of capital construction in the future.

This also concerns foundations. Is it really wise to direct more than half of the assets, which have been allotted to the entire project, toward the construction of the building's underground portion when fundamentally new and much less labor intensive solutions are known -- for example, so-called floating foundations which insure the high reliability of buildings and structures on permafrost?

The construction of a workshop for light metal designs and hinged plates of the "sandwich" type in Tynda would help very much. Their use would permit the metal and cement requirement of the construction project to be reduced, expenditures for transporting and assembling the reinforced concrete elements of the production buildings to be reduced, and the time for their erection to be shortened.

The problem of technical support for the construction project is one of the most urgent ones.

The equipment, which is now operating here, was delivered to the main line 10-12 years ago and has practically exceeded its useful life. True, thanks to the repairs that have been performed in our industrial bases, the machines and gear continue to operate. You will agree, however, that it is not worthwhile to spend resources, which are equal to the cost of new machines and gear, on restoring this equipment. Its further use, which annually inflicts up to 18 million rubles in losses, is economically inadvisable. Its rapid replacement is a real necessity and we are relying on the help of the USSR Gosplan and Gossnab.

[Question] In a word, the task facing the BAM builders requires a serious reorganization of the work of both the builders themselves and of the entire complex that is supporting the "main line of the century?"

[Answer] The most decisive and most immediate! We have outlined in accordance with the congress decisions a clear program for a radical improvement in affairs. The program provides for the maximum industrialization of construction, smooth and integrated supply, the shortening of construction periods for projects, and the lowering of material and labor expenditures. The automated system for controlling and organizing construction, which is now being developed for the group information computer center that is being established in Tynda, will contribute to this. With its help, we are counting on arranging for the effective and flexible planning and material technical supply of the construction project and using all types of resources more effectively. This, however, is insufficient. The builders of the main line will not manage without the necessary attention and support by the planning and supply organizations and chiefs of BAM.

8802
CSO: 1829/188

MARITIME AND RIVER FLEETS

HISTORY, ACTIVITIES OF LENINGRAD WATER TRANSPORT INSTITUTE

Moscow RECHNOY TRANSPORT in Russian No 2, Feb 86 pp 8-10

[Article by Doctor of Technical Sciences S. Zubrilov, vice-rector of the Leningrad Water Transport Institute: "Leningrad Water Transport Institute Scientists--to the River Fleet"]

[Text] The Leningrad Water Transport Institute collective is making a substantial contribution to the matter of implementing party decisions concerning the most rapid introduction into production of the results of scientific developments and research conforming to the current achievements of scientific and technical progress. In recent years, close cooperation of its scientists with river transport enterprise collectives in the Northwestern Basin has developed, on which basis the greater part of its scientific research is done. As early as 1975, a combined work plan, aimed at significant increase in the efficiency of the Northwestern Shipping Company and the Volga-Baltic Waterway imeni V.I. Lenin, was developed with the producers' active participation. Introducing the results achieved according to this plan of scientific research work at Leningrad River Transport Center [Uzel] enterprises permitted obtaining an economic effect [benefit] of more than 13 million rubles in the years 1981-1984.

Forecasts of river transport development to the year 1990, and for the future to the year 2000, have been worked out by the institute in seven scientific and technical groups assigned to it as the lead organization.

Work on maintaining and improving river navigating conditions now is conducted on the basis of a system of scientifically sound and proven-in-practice principles. Introducing the results of LIVT [Leningrad Water Transport Institute] developments has permitted substantially improving navigating conditions on one of the most difficult sectors of the Neva--the (Ivanovskiye) Rapids. Dredging operations, carried out according to the scientists' recommendations, made it possible to bring about two-way ship traffic on this sector, and to obtain an annual economic benefit of over 500,000 rubles.

The institute took part in planning the water transport part of the system of works to protect Leningrad from flooding.

At the present time, the problem of providing navigating conditions on waterways of the Far North, Siberia, and the Far East, particularly on the Nadym River, is extremely urgent. The conclusions and recommendations arrived at in result of research performed by institute scientists under Professor V.M. Seleznev's leadership served as the framework in the drafting of a plan for radical improvement of navigation on this river by Sibgiprorechtrans [the Siberian State Institute for Planning in River Transport]. They were used, as well, in planning other works in this basin. At present, depths have been created in the Nadym River that provide for the movement of large ships along it. The economic benefit has amounted to 300,000 rubles. Similar surveys are being conducted on the Pur River.

Leningrad Water Transport Institute scientists have made a contribution to the construction of hydraulic engineering works on Siberian rivers, particularly the Krasnoyarsk Water-Engineering System, in which the first ship lift [ship elevator] in our country has been built.

The problems of improving cargo-transfer processes in ports of the Arctic occupy a significant place in scientific research. The problem, applicable to Dudinka Maritime Port, of preserving docking structures when performing icebreaking operations near them with powerful Arctic icebreakers has been solved. Discovery of the mechanism of an icebreaker's effect upon the docking structures enabled a team of scientists headed by Professor V.K. Shtentsel to find an essentially new solution to this problem. It consists of assigning those icebreaker operating procedures under which loads on the structures are 1/10 to 1/15 as much as before, and become practically safe. Since introducing the results of the research, destruction of docking structures during icebreaker operation has ceased entirely. A benefit of several million rubles has been obtained.

Research aimed at discovering the reserves of load-bearing capacity in port docking structures has yielded substantial results. The capacity of wharf-front storage areas has been increased 1.3-fold, and it has been decided to install the more massive 40-metric-ton cranes on a number of wharves, instead of the existing cranes of 10- to 15-metric-ton load capacity. This work has permitted arrival at not only practical conclusions, but valuable scientific ones as well, which make it possible to formulate the theoretical fundamentals for planning and operating docking structures under the Far North's conditions.

Teams of scientists, headed by Doctors of Technical Sciences I.A. Chinyayev, Yu.V. Sumerkin, V.V. Tikhonov, and V.F. Bavin, are devoting great attention to development and improvement of the transport fleet, organization of its technical operation, improvement of ship power plants [engines], and shipbuilding and ship-repair organization and technology; and are engaging in improvement and development of new ship architectural-design types and a search for solutions aimed at raising the level of their operational and economic characteristics, and in establishing norms for the efficient use of a fleet with differing propulsion principles. The research results are being used in developing assignments of river fleet ship types, as well as in designing and building them.

According to a forecast worked out by the institute, the shipping companies will be augmented with mixed-navigation motor ships of a new type having a cargo capacity of up to 4,000 metric tons, which will make it possible to bring their operating period up to the maximum and increase the volumes of foreign freight carriages.

On the basis of research carried out in recent years, Volgo-Balt-series cargo motor ships are authorized to sail to the port of Bremen, as well as in the Sea of Marmara and the Aegean Sea. Increasing their draft is a reserve for raising the efficiency of mixed-navigation ships. Studies have shown that the cargo capacity of the Volgo-Balt motor ship can be increased by 10 percent in this way. Work along this line continues. Its results attest to the possibility of increasing the cargo capacity of Ladoga-class motor ships by 20-25 percent.

A combination of scientific research and planning and design work has been done on the creation of mixed-navigation pushed barge trains having a 10,000-12,000-metric-ton cargo capacity for carrying bulk national economy freight on no-transshipment lines in the Northwestern, Southern, and Far Eastern Basins.

The necessity of augmenting the river fleet with ships of new types has been substantiated. Among such ships are 5,000-ton dry-cargo motor ships and tankers, intended for operation under prolonged shipping season conditions with entry into coastal maritime regions. Their construction will permit carrying freight at guaranteed times in the shipping season and increasing the volume of transport work by 25-30 percent.

Increasing the technical level and quality of ships has paramount significance for ensuring the river fleet's high efficiency. The scientific fundamentals have been worked out and the ways of solving this problem defined by the institute. In particular, research has been carried out on propulsion systems, and proposals have been made for their standardization.

Prolonging the shipping season is one of the basic problems. Introducing guaranteed times for its beginning and end, and switching a part of the freight turnover from other forms of transport to the river fleet in the spring and fall periods have particular significance. The Leningrad Water Transport Institute has become an initiator of developments in the measures providing for operation of navigation works under ice conditions. In result of joint work of its scientists and specialists from Lengiprorechtrans [the Leningrad State Institute for Planning in Water Transport] and the Volga-Baltic Waterway imeni V.I. Lenin Administration, the shipping season on that waterway was prolonged by a month and a half, which has yielded an economic benefit of more than 500,000 rubles per annum. The recommended engineering solutions are being introduced as well on the hydraulic engineering works of the Volga Basin and others.

The now-accomplished construction of a series of icebreaking and ice-removing equipments was justified by the institute's scientists. Engineering solutions were found, providing for the operation of locks in below-freezing air temperature conditions and the presence of broken ice, the maintenance of non-freezing water areas for ports and shipbuilding and ship repair enterprises, and an increase in transport vessels' ice-transiting ability. On the basis of joint research with the GIIVT [Gorkiy Water Transport Engineers Institute], guaranteed times for the beginning and end of the shipping season on rivers have been proposed.

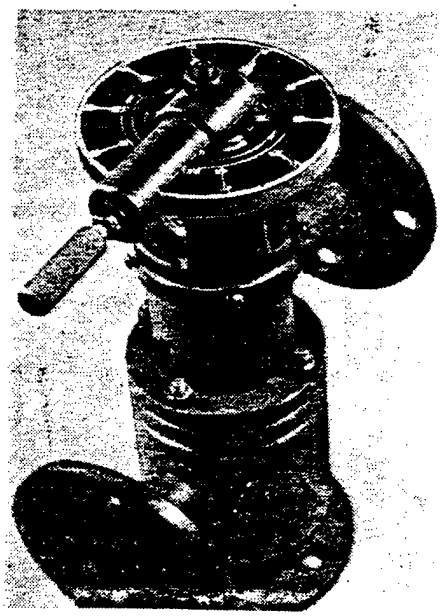
In cooperation with Northwestern Shipping Company specialists, a system was developed for organizing operation of the icebreaking and transport fleets in ice conditions on the Volga-Baltic Waterway imeni V.I. Lenin, which calls for the creation, in March or early April, of a free waterway, all the way through, along the entire navigable route, rather than the previously practiced escorting of each separate convoy. Introducing the new system has made it possible to organize simultaneous placing in operation of cargo vessels and significantly reduce their idle time while awaiting escort, and to provide the opportunity for the transport fleet's round-the-clock movement practically without the assistance of icebreakers. Ways are being sought for further prolonging the shipping season.

An alternative method has been proposed by the institute for carrying grain from the Leningrad Maritime Commercial Port to the Milling Combine imeni S.M. Kirov during the winter period, without opening drawbridges, in cargo motor ships of the Nevskiy series specially adapted for these purposes by a TsTKB [Central Engineering Design Bureau] design. Using just one such ship will permit the freeing of up to 50 railroad cars for other hauling.

Research is being done on further improving the electrical equipment and electric power systems of ships and river transport shore enterprises and increasing their operational reliability, and up-to-date control systems are being developed. Automatic steering devices [avtorulevyye] for river ships, which were awarded the State Mark of Quality, and devices for controlling port machinery and navigation locks have been created and introduced.

An experimental standardized contactless-logic control system (work leader Professor S.A. Popov), which has substantially increased lock-passage reliability, has been functioning for several years now on lock No 30 of the Volga-Don Navigation Canal imeni V.I. Lenin. At the present time, industrial manufacture of the instruments and equipment necessary for its assembly has been mastered.

For the purpose of providing for fuel and energy resources economizing, a shipboard fuel preparation system, with the UZGS-5000 ultrasonic hydrodynamic mixer, FOTV-60 filters for cleansing the fuel of water, and cavitation generators for its processing, has been developed and introduced into series production.



Ultrasonic Fuel Mixer-Feeder UZGS-5000

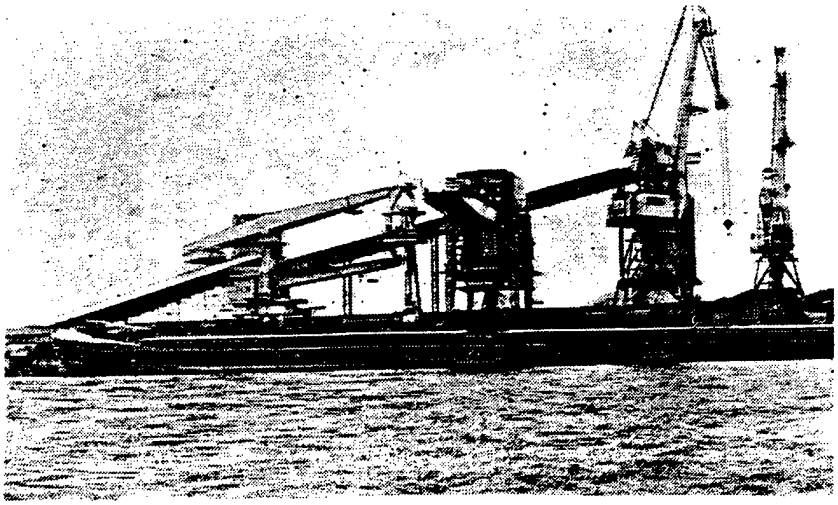
With the aid of institute scientists, the operation of KOAV-200 automated boiler units running on motor fuel was mastered on motor ships, which produced a saving of 300,000 rubles. The overall economic benefit for 1981-1984 from introducing results of research on efficient fuel use carried out by institute staff members under the leadership of Professors V.A. Somov and V.M. Seliverstov amounted to several million rubles. The existing beginning provides grounds to count on a reduction in the river fleet's diesel fuel consumption by 5 to 6 percent, largely due to no less than a twofold increase in the use of low-grade fuels.

The combination of work on creating new and improving existing means of mechanizing cleaning and painting operations deserves attention. Research is being done, as well, on protecting ship hulls from corrosion during their building, operation, and repair.

Leningrad Water Transport Institute scientists are cooperating actively with design organizations in work on designing dredges and hydraulic cargo-transfer systems for mixed sand and gravel.

They made their contribution to the creation of an automated port in (Perguba) for loading apatite and nephelites, and systems in Perm and Astrakhan for unloading these materials.

A new type of cargo-transfer machine--an air-cushion conveyer--was created, and other engineering solutions on a par with the best of world examples, which are protected by inventor's certificates [Soviet patents], were worked out.



Installations Created by LIVT for Unloading Apatite Concentrate from Ships

Environmental protection matters occupy a significant place in the scientific research. Fundamental documents have been drawn up: Rules for Protecting Waters in River Navigation, Rules for Conducting Operations to Clean Polluted Water Areas of Ports, and a draft GOST [All-Union State Standard] for methods of analyzing natural and waste waters for oil and oil-products content.

Installations and floating stations for cleaning oil-containing waters have been introduced according to Leningrad Water Transport Institute developments arrived at jointly with planning organizations. Engineering methods for decontaminating waste waters are being worked out jointly with the Gorkiy TsKB [Central Design Bureau]

During the years of the 11th 5-Year Plan, the institute's staff members published 19 monographs and 23 collections of scientific works, and 49 exhibits were presented at the VDNKh SSSR [Exhibition of USSR National Economic Achievements], of which 30 were awarded exhibition medals. During this period, 237 inventor's certificates were obtained for inventions. The results of 154 jobs, including 25 machines, instruments and devices of new types, 71 technological processes, and 62 guiding technical materials [instructions, etc.], were introduced at industry enterprises. The overall confirmed economic benefit during this period amounted to about 50 million rubles according to institute data.

The collective is not resting on its laurels, but is posing new problems for itself, the solutions to which will further river transport's intensification activity and acceleration of scientific and technical progress. A scientific beginning is being readied on the subject "Planning the Navigation Works for Operation Under Prolonged Shipping-Season Conditions on Waterways of Siberia." Further research will be aimed at supporting a transition to year-round ship navigation on certain sectors of waterways. The first of the institute's

developments in this field were used in organizing the winter shipment of ore on the Dnieper. It is planned to solve similar problems applicable to other basins, particularly the Northwestern (shipment of mineral building materials from Rovnoye and (Pogra) to Leningrad, and white-streaked [belorucheyskiye] limestones to Cherepovets).

Air-Cushion Conveyer Manufactured by the EIZ [Experimental Research Plant] According to the Design of the Leningrad Water Transport Institute and the Leningrad State Institute for Planning in Water Transport

The automation of fleet traffic control on lock-equipped sectors of waterway will receive further improvement.

The solution to the problem of redirecting part of the flow of northern rivers will be an important feature of hydraulic engineering construction in the 12th and subsequent 5-year plans. On the basis of accomplished research, the institute has formulated requirements concerning the canals for redirecting the flow, fulfillment of which will ensure the canals' most efficent use for navigation.

The growing need for fuel on the one hand, and the limited supplies of oil on the other, urgently demand an accelerated solution by the institute's scientists to the problem of reducing the consumption of petroleum fuels by the river fleet and seeking their replacement with other kinds of fuel.

The development, jointly with design organizations, of devices for automated control and registration of the operating variables in ship engines and automatic optimization of the operating conditions for main and auxiliary machinery, and of improved technical operation methods should create conditions for reducing crew personnel allowances by 45-50 percent in mixed-navigation ships, and 25-30 percent in inland-navigation vessels by the years 1990-2000.

The search for and introduction of technological processes that will eliminate the harmful effect of loading and unloading operations upon the environment, and the creation of machinery and equipment for comprehensive utilization of deposits of sand and gravel materials, including land restoration for the worked-out quarries, remain some of the basic tasks.

As a result of implementing the Leningrad Water Transport Institute and Northwestern Shipping Company joint plan of organizational and technical measures, automated management systems for foreign and passenger carriages, and the Leningrad River Port as well, will be placed in industrial operation in the 12th 5-Year Plan. Automation of the most important management functions is foreseen: Current and moment-to-moment planning, adjusting, monitoring, recording, and analyzing of fleet utilization and port operation; and formatting and processing shipping documents. Along with the use of computer technology, extensive automation of work places in shipping companies and ports (ARM-RF) [automation of work places--river fleet] is intended, as a necessary condition for ensuring effectiveness of the automated management systems.

Introducing ASU's [management automation systems] based upon modern computer-technology and communication equipment, and automating work places as well, will permit reducing the number of administrative personnel, improving labor conditions, increasing the management quality of river transport and bringing about improvement in its work's operational and economic indices, reducing transport-means demurrages in ports by 5 to 6 percent, freight holding periods in storage by 8 to 10 percent, and freight delivery time to consumers by 3 to 4 percent, and increasing passenger-carriage volume by 5 percent. In result, it is expected to obtain an annual economic benefit of more than 600,000 rubles at Minrechflot [Ministry of the River Fleet] enterprises in the Leningrad region.

The Leningrad Water Transport Institute collective, having substantial scientific potential at its disposal, applies all of its strengths to solving the problems set before river transport and the industry's science by the communist party. However, the scientists' contribution to improving the industry's work could be significantly more effective if existing shortcomings were eliminated. In our opinion, it is necessary to abandon the planning and financing of research work by scientific directions [napravleniya]. In the 12th 5-Year

Plan, we should shift to planning research work in the same way as experimental design work, by comprehensive specific-purpose scientific and technical programs. A Ministry of the River Fleet Scientific and Technical Administration should carry out the centralized financing of such programs, and deputy ministers should supervise their execution.

The proportion of the Leningrad Water Transport Institute Experimental Research Plant's production in scientific directions charged to the institute presently constitutes about two-thirds of its overall volume of accomplished production. However, the plant still is far from completely fulfilling its functions, inasmuch as it does not have the necessary resources at its disposal. Since the moment of its transfer to the Ministry of the River Fleet system in 1960, its basic resources have undergone no changes whatsoever, and its equipment is placed in unsuitable spaces. The shortage of production and convenience areas, the nonconformity of these to sanitation standards, and the obsolete and physically worn-out equipment, the bulk of which has been operating for over 20 years and is housed in basement and semi-basement spaces, lead to personnel turnover and an acute shortage of workers. At the present time, the residual value of its basic production resources amounts to only 27 percent of the original value.

For a fundamental increase in the rates and effectiveness of scientific research and ensuring accelerated introduction of its results into production, the matter of reconstructing the experimental research plant during the years 1986-1990 must be resolved.

As urgent measures, aimed at providing the plant with its own tasks, it is necessary to establish the fulfillment of quotas for production of models and experimental prototypes and output of trial series of instruments and equipment manufactured according to the results of scientific research developments as the enterprise's basic index. The quotas for series-production output should be included in a plan solely for purposes of filling out the workload, and their fulfillment considered among the indices being taken into account.

It is extremely important, also, to change the supply system for the industry's experimental research and development plants: The Ministry of the River Fleet Glavsnab [Main Administration for Material and Technical Supply] should effect their direct material and technical support, foreseeing the allocation of the funds as a separate line item in its annual plans. The interests of good business demand that the Leningrad Water Transport Institute's plant be provided with machine-tool equipment on a first-priority basis. The Ministry of the River Fleet Main Administration for Ship Inventory and Ship Repair Enterprises should resolve the matter of accelerated manufacture of steel-casting forgings according to the plant's orders, so that their delivery times do not exceed 6 months.

Since the moment of the Leningrad Water Transport Institute's uniting with the TsNIIRF [Central River Fleet Scientific Research Institute] in 1959, the volume of its scientific research work has quadrupled. Training of the more highly

skilled personnel has expanded considerably: Institute staff members annually defend no fewer than 2 or 3 doctor's and 18 to 20 candidate's dissertations. However, the conditions essential for normal work are lacking: All educational and part of the laboratory spaces are used by students and scientific staff members daily until 2200.

In recent times, because of improvement in research organization, the number of laboratories has been reduced by one-third, and the possibilities for their further reduction and combination have been exhausted for all practical purposes. At the same time, industry interests demand the creation of new scientific sections [podrazdeleniya], such as robotization and prospective fuels, and other laboratories. In this connection, it is extremely necessary to construct the institute's new educational and laboratory building, as was called for by the CPSU Central Committee and SM SSSR [USSR Council of Ministers] decree "On Measures for River Transport Development in the Years 1981-1985."

12319
CSO: 1829/179

MARITIME AND RIVER FLEETS

MINISTER ON RIVER FLEET PROBLEMS, SUCCESSES

Moscow VODNYY TRANSPORT in Russian 5 Apr 86 pp 1-2

[Article by RSFSR Minister of the River Fleet L.V. Bagrov: "Acceleration and Reorganization--The Order of the Day"]

[Excerpts] It is planned to implement a set of measures in the very near future to introduce methods of administration and management suited to current requirements, and to increase the concern and responsibility of enterprises for achieving the greatest end results on a true cost-accounting basis and establishing the direct dependence of the collectives' income levels upon work effectiveness.

To solve the indicated problems, it is intended to ensure the coordinated development of the country's unified transport system and its interaction with other national economy sectors, and to improve the work coordination of all forms of transport. Primary emphasis will be placed upon progressive methods for transporting freight and passengers, and upon reducing the delivery times for freight and ensuring its preservation.

It is planned to accelerate the creation and introduction of advanced equipment and technology, to develop new forms of transport, to increase the overhaul rates for rolling stock and other transport machinery, and to strengthen the material and technical and repair bases.

It is intended to increase the volume of freight carriages in river transport by 9-11 percent, to ensure higher shipping growth rates on rivers of Siberia and the Far East and on minor rivers, to develop shipping in large-capacity pushed barge trains and ships of mixed river-sea navigation, and to prolong the guaranteed navigation period on mainline rivers.

It is planned to renovate the river fleet, equipping it with economical non-self-propelled vessels, tugs, mixed navigation ships, and comfortable passenger motor ships; to continue developing and reconstructing ports and ship repair plants [yards], in regions of Siberia and the Far East first of all; and to improve substantially the utilization of river vessels and the production capacities of ports and plants.

Before dwelling upon the essential measures for improving our work in light of the 27th CPSU Congress requirements, it is advisable to provide a brief evaluation of the industry's work during the 11th 5-Year Plan.

The RSFSR Ministry of the River Fleet fulfilled the past 5-year plan's freight carriage plan by 101 percent (in sum of annual plans). Delivered above the plan were 26.5 million metric tons of national economy freight. The quotas for freight processing in ports and overall capital investment volume were fulfilled. A step forward was made in housing construction--during 1981-1985, 1,475,000 square meters of living space were put in, which is more by 11.7 percent than in the 10th 5-Year Plan. The plan for industrial production was fulfilled by 100.9 percent, and the labor productivity in industry grew by 21.9 percent, with an 18.6-percent quota.

Freight carriages in the eastern basins developed at surpassing rates.

But still, critically analyzing the ministry's work in light of the 27th CPSU Congress requirements, the results achieved in basic activity during the 11th 5-Year Plan cannot be recognized as satisfactory. While fulfilling the plan in freight delivery volume, the freight turnover approved in the annual plans went unfulfilled by almost 19 billion ton-kilometers. Planned quotas for freight carriages by established nomenclature repeatedly went unfulfilled, disruptions of freight delivery along the Lena River were permitted, and freight carriages on minor rivers of Western Siberia grew at extremely slow rates. Labor productivity in carriages grew by only 3.5 percent during the 5-year plan, with a quota of 15 percent. The increase in freight turnover due to the growth in labor productivity amounted to only 58 percent, and the sector obviously was developing by extensive methods. Rates of growth in pay were allowed to exceed labor-productivity growth in carriages.

The difficulties that developed with presentations of freight for carriages, and the other real and perceived reasons, were not countered with enough organizing work by the shipping companies and ministry offices in seeking out new freight traffic, and in mobilizing the labor collectives to expedite fleet turnaround and economize material and labor resources. All of this led to decline in carriage growth rates and labor productivity, and to significant worsening of most shipping companies' economic status.

Large tasks, stemming from 27th CPSU Congress resolutions, have been set before Russian Federation river transport workers for the 12th 5-Year Plan: Increase the volume of carriages by 9.4 percent, including an increase by 13 percent in regions of Siberia and the Far East, and an increase by 17.5 percent on minor rivers. In 1990, bring the carriages of freight for the Yamburg gas-condensate field up to 4.8 million metric tons, and those to the Yakutsk ASSR and northern regions of Irkutsk Oblast from (Osetrovskiy) Port up to 4.8 million metric tons annually. Ensure labor-productivity growth by 20.8 percent in basic operational activity, and reduce numerical strength by 10,400 persons. Increase profit from all forms of activity by 12.5 percent. Change the existing tendency toward constant growth of production cost in basic operational activity, having ensured costs at the 1985 level per 1 ruble of revenues in 1990.

The second main problem in improving all of our work is increasing transport production, and its revenues first of all. A steep rise in the proportion of high-rate freight in the overall volume of carriages and, because of this, a significant increase in the average revenue rate must become a basic direction in the revenue growth area. During 1981-1985, the revenues from dry-cargo carriages grew by 90 million rubles, including growth by 61 million rubles due to volume and only 29 million rubles due to growth in revenue rate. In the present 5-year plan, it is essential to ensure growth in revenues from dry-cargo carriages in the amount of 146 million rubles, and, in so doing, the greater part of the revenue growth must be effected through growth in the average revenue rate.

A change in the structure of cargoes being transported through a significant increase in high-rate freight--this is a demand of the new management conditions. During the 5-year plan, it is necessary to increase revenues from basic operational activities by 16 percent as a minimum.

How are the shipping companies reorganizing their work in this direction? It must be said frankly--very timidly, hoping to survive the 12th 5-Year Plan on the existing freight traffic, which has an extremely low average revenue rate. The shipping companies' measures for labor-productivity growth, in which, for most shipping companies, the growth rates in revenues were assumed to be even lower than those achieved in the 11th 5-Year Plan, have confirmed this.

Under conditions of constant growth in the assignment of empty tonnage for bringing out increasing freight-presentation volumes from the northwest, the Don and the Kama, the most important task is loading these empty assignments through attracting high-rate freight, such as motor vehicles, metal, equipment, and other packaged and one-piece freight.

Advocating reorganization in words, senior ministry officials continue to be captives of the former priorities in cargo traffic, apparently unable to break away from ton-kilometers, and this is simply intolerable today.

In order to carry out the difficult task of increasing revenues, intense work is required of the shipping companies and all MRF [Ministry of the River Fleet] Main Administrations, and the bitter lessons of past years must be taken into account.

Finally, it is necessary in fact, and not in words, to apply computer technology to management of the transport process in order to reduce sharply the nonproductive standing of ships and expedite fleet turnaround. Also, one must not accept the fact that the proportion of fleet standing while awaiting cargo operations is growing constantly in the overall gross norm, and has reached 54.4 percent, significantly greater than that in cargo operations. Herein lies one of the basic reserves for increasing fleet carrying capacity and augmenting revenues and profit.

The shipping companies and the MRF Glavport [Ministry of the River Fleet Main Port Administration] are devoting entirely too little attention to disseminating Tomsk Port's experience in organizing well-coordinated work with freight shippers and receivers. As a result, the above-plan demurrages at departmental docks [wharves, quays or piers] amounted to 15.5 million tonnage-days in 1985.

A large task confronts river transport in developing cargo and passenger carriages on minor rivers, especially in regions of Siberia and the Far East. It is very important that these carriages, too, become profitable for the shipping companies from the standpoint of obtaining increased revenues. By 1990, the volume of carriages on minor rivers must be increased by 25 percent, and, along the Ob-Irtysh Basin by more than 30 percent.

It is essential as soon as possible, in keeping with creation of the necessary waterway conditions and construction of a small-tonnage fleet, to begin the transport servicing of all minor rivers in the region of the West Siberian Oil and Gas Complex by the Ministry of the River Fleet's fleet. Today in this region, about 3.5 million metric tons are being carried on the minor rivers by a departmental fleet. The making of surveys on 26 primary minor rivers, having a length of 5,700 kilometers, is foreseen by the program for transport development of the minor rivers of Western Siberia in the 12th 5-Year Plan.

Hundreds of units of various vessels for operation on minor rivers are to be constructed at ministry enterprises during the years of the 5-year plan. It is necessary to study the designs of this fleet once again, and take the vessels' operating conditions into account to a maximum extent. Probably, part of this fleet must have ramps for carrying wheeled equipment, and part--on-board cranes for moving small-batch freight.

The "green light" must be given to construction of an experimental paddle-wheel motor ship. Such a type of pusher tug with shallow draft can solve many problems of operating on shallow rivers.

In creating and introducing the transport technology system for carrying freight and passengers on minor rivers, for the creation of which the Main Administration for Carriages and Fleet Operation, the PEU [Economic Planning Administration], and our institutes are responsible, all of the fundamental questions concerning this important problem must be considered. The Economic Planning Administration is tasked with solving the problem of increasing the construction of shallow-draft tugs at Minsudprom SSSR [USSR Ministry of the Shipbuilding Industry] enterprises, and the GUKS MRF RSFSR [RSFSR Ministry of the River Fleet Main Administration for Capital Construction]--that of building the clientele's docks, creation of which is called for by government decrees. Considering the fact that the carriages on certain rivers are not of a massive nature and will be effected for a short time, the planners should think about using movable docking facilities with the appropriate mechanization.

The 27th Party Congress put forward requirements to expand conclusively the limits of labor collectives' independence, and to increase their responsibility for achieving the best possible end results. But for this, the shipping companies must shift consistently to true cost accounting, self-support, and self-financing; and income level must be put into direct dependence upon work effectiveness and quality. The strict dependence of growth in the pay for labor upon increase in its productivity is a law of socialist society's development.

A general plan for managing RSFSR river transport is being developed by the ministry, and questions of the advisability of uniting separate ports, operational repair bases, and other enterprises are being examined in the process. Enlargement of cargo regions, introduction of shopless work organization, and the creation of unified transport technology collectives are envisioned. Service zones and combinations of official duties will be expanded; and the introduction of organizing equipment [orgtekhnika--various technical devices for mechanizing and automating engineering and management work] resources, through which the engineering and technical staff of enterprises will have greater freedom, will be carried out. Thus, the Moscow Shipping Company's managers have proposed to unite the ports of Dzerzhinsk and Vyazniki, and the (Dudenev) REB [Operational Repair Base], and create a unified labor collective for them.

A proposal to unite the Leningrad and Zapadnyy [Western] Ports in Leningrad, and the Cherepovets and Belozersk Ports has been introduced for the Northwestern Shipping Company. We consider that the presence in one city or oblast of several small ports associated with a single work technology is inadvisable. Such enterprises should have a unified management. In this way, a significant reduction in the number of workers and a chance to use the advantages of the new management conditions more effectively are attained.

Our river plants and ports annually produce industrial products worth 500 million rubles. In 1985, hundreds of self-propelled and non-self-propelled vessels were built, 2,300 kinds of shipboard mechanisms and a large quantity of spare parts were put out, and thousands of vessels were repaired. Their quality--this is the operating reliability of the large-load vessels, including the passenger vessels and river-sea ships as well, and their navigation safety.

The Ministry of the River Fleet incurs losses from poor-quality repair and manufacture of vessels and spare parts that are significantly greater than those in many of the other sectors, and the defective products lead to downtime for basic resources of very great unit capacity and value. Thus, because of technology violations, the established service life is not maintained for the M-400 and M-401 diesel engines capitally repaired at the Tolyatti SRMZ [Ship and Mechanical Repair Plant] and the 6ChSP engines capitally repaired at the Omsk SSRZ [Shipbuilding and Repair Plant]. The quality of grab-bucket manufacture remains low.

It cannot be accepted that many obsolete products are being produced in the sector, and that a consistent product-certification system is practically

nonexistent in shipbuilding. The role of the RSFSR Registry and the technical control departments is discredited in all of this work. It must be said frankly that the shipping companies, the BUP's [basin waterway administrations] and enterprises, and the RSFSR Ministry of the River Fleet Technical Administration and Glavflot [Main Administration for Ship Inventory and Ship Repair Enterprises] neglected this work, and did not draw the proper conclusions from the CPSU Central Committee's instructions set forth in the letter about radical improvement in product quality.

Work efficiency and the output of high-quality products depend upon the technical level of production and the introduction of scientific and technical progress. It was stressed once again at the 27th CPSU Congress that the acceleration of scientific and technical progress is the main spur to intensification. Our industry has substantial scientific and technical potential at its disposal. More than 8 million rubles are spent annually on scientific research. However, the results of the work to accelerate scientific and technical progress cannot be recognized as satisfactory. The plans for development and introduction of new equipment were fulfilled by only 76.6 percent in the 11th 5-Year Plan. However, the main point here is not in percentages, but in the scientific and technical progress plan's still very slight effect upon the growth of labor productivity.

Research in the areas of river transport economics, freight-traffic development, and increase in fleet and port work efficiency is being introduced into production unjustifiably slowly.

Our science must take an active part in developing a long-term program for re-equipping production. At the same time, under the old science management system, and with the former attitude toward scientific research and design developments and manufacture of the latest equipment, we could not have raised this issue. Therefore, it is necessary to solve promptly the problems of creating a scientific and technical administration and scientific production associations, which may also conduct research--substantiating and designing a machine or technological process.

Increase in production's technical level depends to a large extent upon the effectiveness of using capital investments. The greater part of these is aimed at the technical re-equipment and reconstruction of operating enterprises, instead of at new construction.

It is no less important to achieve fundamental improvement of the planning work in construction. Today, many enterprises having the necessary funds and an acute requirement for reconstruction cannot proceed with it because of the lack of documentation.

And even the quality of the planning documentation leaves much to be desired. Construction of the Podporozhye Port is being carried out on the Svir River according to a "Lengiprorechtrans" ["Leningrad State Institute for Planning in River Transport"] plan. In creating practically the first true transshipment

port in the Northwest, it would seem that the most up-to-date planning decisions should be made. However, through the fault of "Lengiprorechtrans," this did not happen, and today it is clear that the Podporozhye Port will be transshipping cargoes entirely different from those foreseen by the plan. And yet, overhead traveling cranes, which are not suitable for unloading railroad cars carrying crushed rock, traffic in which has been determined to be 2 million metric tons, are being installed in the port. Even the Northwestern Shipping Company, by order of which the Podporozhye Port was planned and is being constructed, has proved unequal to the occasion.

The decisions being made in plans, entailing high metal and concrete content for docks [wharves, quays or piers] in the Ob-Irtysh Basin, are causing serious concern. Our planners are not looking for ways of reducing the construction cost of the docks and creating lighter structures through the use of modern, inexpensive materials. The Yamburg Port was planned according to old, existing designs.

Profit is the basic fund-forming index for shipping companies under the new management conditions. During the 11th 5-Year Plan, the plan for profit in basic operational activity was fulfilled only in 1983, and was not once fulfilled for industry during the entire 5-year plan. For the formation of profit, expenses have paramount significance. In 1985, with growth of cargo turnover reduced by 6.1 percent to the 1980 level, expenses in the carriages grew by 30.7 percent, including growth of those for wages and salaries by 21.9 percent, fuel by 15.3 percent, fleet repair by 29.1 percent, and amortization by 43.7 percent.

The tendencies for growth in the cost of basic resources and, as a consequence, increase of specific costs in amortization are retained in the current 5-year plan as well. At the same time, the Ministry of the River Fleet Technical Administration is tolerating serious deficiencies in coordinating plans for building ships.

Reorganizing the working style of each of us, taking into account the requirements for shifting to intensive working methods, is the main thing today in work with personnel. It is very important to the Communist leader of any rank to have a clear idea of the truth that the reasons for deficiencies should be sought, not in the objective circumstances, but in our own blunders and errors first of all. He must inculcate in himself a feeling of inner dissatisfaction, understanding that you will achieve no forward movement whatsoever if you are passive and without initiative. The human factor--this is not a phrase, it is tremendous reserves for production, in each of us first of all, and even more when speaking of all the industry's workers.

It is necessary to increase responsibility and demandingness, and to strengthen good order and discipline. It is necessary to act firmly and consistently absolutely everywhere. An analysis of the state of production and labor discipline in 1985 shows that the measures being taken by us have not produced the proper effect. Offenses among workers of the industry were reduced by only

8 percent in comparison with 1984. For appearing on the job in a drunken condition, 392 commanders [ship captains] were deprived of the river fleet specialist title. For unauthorized absences and other violations of discipline, over 5,000 persons were fired. The number of accidents and emergency incidents grew by 7.2 percent in the 11th 5-Year Plan as compared to the 10th.

12319
CSO: 1829/174

MARITIME AND RIVER FLEETS

V/O MORKONTEYNER CHIEF ON CONTAINERIZATION EFFORTS, PLANS

Moscow MORSKOY FLOT in Russian No 4, Apr 86 pp 20-23

[Interview with Mikhail Aleksandrovich Kurbatov, chairman of the Maritime Containerization All-Union Association, by the MORSKOY FLOT editorial office, as written up by V. Ponomarev: "A Timely Interview: From Door to Door"; the date of the interview is not given; the first three paragraphs are MORSKOY FLOT introduction]

[Text] In our country, the transporting of freight in containers on all forms of transport, including the maritime, has received marked development in recent years. The Minmorflot [Ministry of the Maritime Fleet] Collegium has reviewed the fulfillment of plans for containerized and packaged-unit [unitized] freight carriages in 1985 and the 11th 5-Year Plan, and has defined the tasks in further development of these carriages for 1986 and the 12th 5-Year Plan.

In the 27th CPSU Congress decisions, improvement of transport work is linked specifically to building up the volumes of goods being carried in containers and packaged units.

The editorial office asked Chairman of the V/O "Morkonteyner" ["Maritime Containerization" All-Union Association] M. Kurbatov to answer certain questions concerning the problems of containerized carriages in maritime transport.

EDITORIAL OFFICE: Mikhail Aleksandrovich, the start of the 12th 5-Year Plan is a sort of transition point for the containerization process. As you know, it is customary to sum up one's work at transition points. What were the indices for containerization in the industry during the past 5-year plan?

M. KURBATOV: Containerization is one of the most progressive methods for transporting freight. A container transport technology system (KTTS) has been created in our country. However, a number of matters aimed at radical improvement in managing this system remains unresolved. And certainly, the creation of a KTTS in one form of transport does not mean an opportunity for the automatic obtaining of an overall economic benefit. Experience, including the international, shows that development of freight carriages in containers can be the more successful, the more actively all participants in the transport process cooperate.

In maritime transport, thanks to a build-up in the KTTS material and technical base, management improvement, and other measures for containerizing freight, the volume of all forms of freight carriages in containers was brought up to 10 million metric tons in 1985. In other words, we succeeded in increasing this volume more than 1.5-fold, as compared with 1980, in the last year of the 11th 5-Year Plan, and, by total of annual plans, in providing fulfillment of planned quotas for the 5-year plan as a whole.

Carriages of national economy cargoes to the Far North, the Arctic, and the Far East in containers have increased. In all, containerized carriages in cabotage [domestic coastal shipping] increased by 51 percent during the past 5-year period.

Containerized carriages grew at surpassing rates in the Magadan (2.3-fold), Kamchatka (1.7-fold), and Dudinka (2.4-fold) directions, and also--to the eastern Arctic region and Chukotka (2.1-fold).

Significant difficulties have arisen in delivering cargoes to regions of the Arctic, Chukotka, and the Far North in 20-metric-ton containers. Because of the freight owners' poor preparedness in these regions, containers have been standing idle in great numbers, both in the ports and at cargo-recipient locations. Beginning in 1983, for the first time in the country, there was introduced in the Far East, on Minmorflot's initiative, a new, highly productive container-packet transport technology system for carrying freight, with the loading and unloading of containers by large-load packet boats using air-cushion displacement systems, to solve this problem.

The system permits increasing labor productivity in these operations six- to eight-fold (not removing the container from the truck trailer), eliminating the requirement for expensive cranes of 20-25-metric-ton capacity and the need for creating container-storage areas at freight-owner locations, and expediting container turnaround 1.5-2-fold.

The greater part of the freight transported in containers is attributable to foreign navigation's share (over 70 percent in 1985). Foreign trade carriages, moreover, grew almost 2.5-fold compared to 1980, and between the USSR and SEV [CEMA--Council for Mutual Economic Assistance] member countries, 2.7-fold. Further growth in carriages of MVT [Ministry of Foreign Trade] freight in containers took place in the trade with India, Japan, and certain other countries.

EDITORIAL OFFICE: Of course, in every direction of containerized shipping development there were, at the same time, certain difficulties to which we should return, although the work's results are impressive. What furthered their achievement? We should like for you to tell us about the KTTS material and technical base and its maritime composition. Today, as you know, technical-equipment availability predetermines work success to a great extent, especially in such a matter as containerization.

M. KURBATOV: A valid observation. In the ministry, in our association, and in many shipping companies, development of containerized shipping is considered directly linked to transport equipment status. And much has been done along this line in recent years.

The fleet has been augmented with 16 container-carrier ships and 21 roll on-roll off [RORO] ships, having an overall container capacity of 18,100 units (of 20-metric-ton rating). These ships have been mastered, and many of them are being operated effectively. Today, the specialized fleet engaged in carrying large-tonnage containers numbers 109 ships.

Much has been done ashore. Container transshipment complexes have been built or expanded in a number of ports, and container-processing volume at the terminals has been brought up to 900,000 units. In 8 ports (Riga, Leningrad, Ilichevsk, Vladivostok, Nakhodka, Vostochnyy, Magadan, and Petropavlovsk-Kamchatskiy), 11 dock-mounted cargo-transfer systems [peregruzhateli--usually forms of overhead traveling cranes], just as many gantry and railroad-gantry cranes each, and 21 container-carrier trucks have been placed in operation. Today, 28 maritime ports in all are effecting transshipment of international-standard containers.

The Minmorflot fulfilled the quotas for large-tonnage container production in the 11th 5-Year Plan. Overfulfillment was achieved for individual series. The containers were awarded the Mark of Quality. Areas for repairing containers, and a specialized base for the purpose in the Leningrad Port, were placed in operation in seven ports during the indicated period. All of this permitted increasing our repair capacity from 17,000 containers in 1981 to 31,000 in 1985.

The development and introduction in ports (Ilichevsk, Nakhodka, Izmail, Petropavlovsk-Kamchatskiy, Magadan) of automated management systems for container-terminal operation (ASU TP KT) must be considered a great achievement. There now are such systems in nine ports. The first unified [yedinaya] automated management system for transport center operation (YeASU TU "Container") in transport now has been functioning for 3 years in Vostochnyy Port.

Thanks to ASU TP KT, transmission of documents by communication channels has been established between the ports of Leningrad, London, and Hamburg, as well as transmission of information about freight movement in containers on the Riga-Rostock and Vostochnyy Port-Yokohama Lines.

In brief, developing the material and technical base, operating on regularly scheduled lines (5 in domestic coastal shipping, 11 in foreign navigation), introducing ASU's [automated management systems], and improving management and legal activity permitted not only coping with planned quotas for 1985 and the 11th 5-Year Plan as a whole in freight carriages in containers, but also creating a reserve for further developing containerization in 1986 and subsequent years of the 12th 5-Year Plan.

EDITORIAL OFFICE: Deficiencies also were noted in the collegium's decision. It is no secret that certain shipping companies (Far Eastern, Azov, Kamchatka) were unable to provide fulfillment of the plans for freight carriages in containers during the years 1981-1985, in which connection, for example, the development rates for these carriages in domestic coastal shipping declined in the Far Eastern and Sakhalin Shipping Companies. Instances of container damage have been tolerated in cargo operations, and the idle times of containers have been considerable in individual ports. In other words, there probably exist internal reserves for accelerating the containerization process.

M. KURBATOV: Absolutely, the reserves exist. The requirements for container repair are not yet being satisfied in full measure. In the past year, about 30,000 containers were repaired at our repair bases; and abroad, almost three times this many. But this means additional expenditures! Furthermore, analysis shows that the volume of repair work is increasing not just because of the container pool's aging, but also in result of its poor handling in areas outside the ports, especially on the railroads. The shipping companies are compelled not to accept a large number of containers, even though they arrive from the MPS [Ministry of Railways] as an equal-number exchange.

EDITORIAL OFFICE: And so the Ministry of Railways' indebtedness to the Ministry of the Maritime Fleet is growing?

M. KURBATOV: At the beginning of 1986, this indebtedness amounted to 5,400 containers. Moreover, penalties had been received from the railroad in the amount of 400,000 rubles, while the amortization deductions that the shipping companies paid to the budget amounted to about 2 million rubles. The maritime fleet is the loser.

EDITORIAL OFFICE: The fleet also is the loser when containers wait in ports for railroad flatcars, and when expensive ships stand idle because of the untimely issue of assignments and shipping orders by V/O "Soyuzvneshtrans" ["All-Union Foreign Transport" All-Union Association] offices for containers of export and import goods.

M. KURBATOV: Yes, accelerating the containerization process depends upon many of our associates in the transport process. There are more than enough examples of this.

You know what significance we attach to delivering cargoes to the Arctic. In spite of the growth in arctic containerized-carriage volume as a whole, the Gossnab SSSR [USSR State Committee for Material and Technical Supply] quota for these carriages in 1985 was not fulfilled because of the Ministry of Railways' failure to present 39,000 metric tons of freight in containers.

Or another: Efficient utilization of the container pool worldwide is linked to monitoring the movements of containers by means of the EVM [electronic computer]. In the maritime fleet, as already has been said, automated systems are being introduced for this purpose. What is more, monitoring of the movement

of Soviet containers by number is carried out even abroad. But then the containers get into our country's territory and their monitoring ceases. We are for the computerization of container-movement monitoring by number, but this will be possible only with introduction of electronic computers on the railroads.

EDITORIAL OFFICE: And here we return once again to the KTTS, to the interaction of transport-process participants. Their efforts should be joint ones. And the material and technical base probably could be built up uniformly. Otherwise, the very point of containerized shipping--"from door to door"--is lost.

M. KURBATOV: "From door to door" means the through delivery of goods in a container from the shipper's warehouse to the recipient's warehouse. This also is intensification of containerized carriages. But here, in addition to the transporters, the freight owners, who must have their own mechanization means and warehouses, participate.

In world practice, freight owners bring about the through delivery of their goods through their shipping agents [ekspeditory], whose functions are very broad. The shipping agent draws up contracts with the carriers of the various forms of transport, monitors the progress of the containers, and makes the settlements with the carriers and container owners. Serving many freight owners, he concentrates a large quantity of freight in his charge, forms containerized lots, and regulates the movement of these. The shipping agent receives complete independence in selecting the mode of transport, decides the matter of its economy, and bears the responsibility for the freight's preservation on the entire route.

EDITORIAL OFFICE: In our country, as has been said already, the KTTS has been created and its material and technical base laid. However, the matters of organizing and managing this system, and particularly the matters of shipping-agent servicing of the freight in containers, in both domestic and foreign trade turnover, and of the containers themselves (on USSR territory), still remain unresolved.

M. KURBATOV: What is more, the freight owners' desire to shift these functions to the transport departments is having a negative effect upon the quality of transport service and the development of containerized shipping. And, in the meantime, according to specialists' estimates, the freight owners are receiving about 70 percent of the national economic benefit from the containerization, which, in addition, furthers increase in both the competitiveness of Soviet goods in foreign markets and export-import currency efficiency.

EDITORIAL OFFICE: Understandably, the system "spins its wheels" at the junctions of different forms of transport. What ways exist for improving management of the KTTS?

M. KURBATOV: As you know, the Gossnab SSSR has been defined as the common center for the complex KTTS-development problem. And in choosing an organization to expedite the containerized shipping of national economy freight, logic refers one to the Gossnab. Precisely it is called upon to play the leading role in establishing efficient container traffic on all forms of the country's transport. In our view, more energetic measures are needed to accelerate the containerization of foreign trade shipments, and it is essential to ensure the connecting of our KTTS with similar systems abroad. And not just in circulating containers and carrying equipment, but in the management structure for the shipments and their level of organization. Domestic and foreign experience suggests that, in containerized shipments of foreign trade freight, an effective shipping agent becomes truly necessary on the freight owner's part, and that is the Ministry of Foreign Trade.

The "All-Union Foreign Transport" All-Union Association has been created, and is acting to perform these functions. So far, this association, unfortunately, is carrying on a rather limited transport-expediting service for containerized shipments on USSR territory and abroad.

Omitting a number of circumstances and conditions favoring the conclusions presented above, it is appropriate to dwell upon one: The Ministry of Foreign Trade and Gossnab expediting organizations need a computer base for moment-to-moment work. The appropriate transport enterprises can present the work to them as it takes place; in Vostochnyy Port, for example, which is the leading organization for a regional transport center. Here, the port's informational computer center is used jointly by port workers, railroad workers, the "All-Union Foreign Transport" All-Union Association, and the V/O "Soyuztranzit" ["All-Union Transit" All-Union Association] to solve a series of mutual coordination problems in the shipment and transshipment of containers.

EDITORIAL OFFICE: Apart from the obtaining of economic benefits by all participants in the shipping process, developing containerized shipping permits the solving of social problems as well. What can be said in this regard?

M. KURBATOV: First of all, the labor of the people engaged in loading-unloading operations is transformed from the heavy physical to the attractive mechanized. Suffice it to say that two or three transshipments are required, as a rule, in domestic carriages, and five to seven in international carriages in the traditional movement of freight from the shipper's warehouse to the recipient's warehouse. Transshipments do not occur in the "from door to door" system. And besides, the goods in the containers are delivered fully intact.

EDITORIAL OFFICE: And the final question: What basic tasks are being set before the maritime fleet by the plans for the 12th 5-Year Plan?

M. KURBATOV: By 1990, carriages of freight in containers and unitized form will be increased by 22.5 percent, the fleet will be augmented with 8 container-carrier ships and 14 RORO ships, 29,300 large-tonnage containers will be manufactured at the Ilichevsk SRZ [Ship Repair Plant (Yard)], it is proposed

to increase the capacity for container repair and certification in the ports and SRZ's to 70,000 units annually, and construction of a container terminal at Port Vanino and expansion of the one at Ilichevsk are planned.

It should be stressed that fulfillment of the 12th 5-Year Plan's quotas for growth in the volumes of freight carriages in containers can be provided for the most part by means of a sharp increase in the intensiveness of utilizing the fleet, a reduction in its processing time in ports, acceleration of container-pool turnaround, and improvement of management within the KTTS framework. The decisions of the 27th CPSU Congress direct us precisely to this.

12319
CSO: 1829/180

PORTS AND TRANSSHIPMENT CENTERS

PLAN CALLS FOR MODERNIZED, BETTER-EQUIPPED RIVER PORTS

Moscow RECHNOY TRANSPORT in Russian No 3, Mar 86 pp 6-7

[Article by Candidate of Technical Sciences P. Artemyev, LIVT [Leningrad Institute of Water Transport], and V. Sitayev, Glavport MRF [Ports Main Administration, RSFSR Ministry of the River Fleet] under the rubric "For Acceleration of Technical Progress": "New Equipment for River Ports"]

[Text] Renovation of ports and their provision with highly productive equipment with simultaneous improvement in production capacities is a necessary condition to further develop and increase the efficiency of river transport.

River ports should be developed not only by building new structures, but primarily by means of increasing the throughput capacity of berths in operation. The use of manual labor in loading and unloading operations has to be reduced, and the volume of cargo shipments has to be increased without adding to the labor force.

A solution for this problem can only be ensured on the basis of technical re-equipment of ports and their provision with highly productive transshipping equipment, broad introduction of machinery for continuous transport, and the establishment of automated transshipment complexes.

Under the draft of the comprehensive plan for developing transshipment machinery and means of mechanization for 1986-1990, drawn up by scientific research and planning and design organizations, 13 models of new transshipment machinery are planned for development. The plan also contains targets for improving hoisting devices and clamshell cranes, as well as for developing automatic control systems for transshipment machinery. Realization of the targets will make it possible to substantially increase the intensiveness of cargo operations, accelerate processing of ships and railroad cars, eliminate the causes of damage to them, reduce the volume of cleaning work, lower electricity consumption and expenditures to maintain equipment in transporting bulk cargoes to support warehouses, and reduce manual labor in cleaning operations and labor-intensiveness in the transshipment of piece goods and containers. The working conditions for crane and machinery operators will be improved and labor productivity will be increased.

The plan to develop transshipment machinery and mechanized facilities has taken into account the measures specified by the Ministry of the River Fleet's comprehensive special-purpose program to reduce manual labor in the ports.

It is planned to develop and build six models of highly productive transshipment machinery.

A clamshell-bunker reloader with productivity of 800 tons per hour and load capacity of 16 tons, with a cantilever projection 17.3 meters to the ship, is being earmarked for unloading bulk cargoes.

Despite an increase in the number of portal cranes, intensiveness of cargo operations in ports is being increased slowly. For this reason, the need has arisen for a fundamentally new design of machine, in which the swinging motion of the gripping unit, unavoidable for portal cranes, would be replaced by forward movement. As a result, the time of the machine's cycle of operation will be reduced and its productivity will be increased accordingly.

Calculations by the TsNIIEVT [Central Scientific Research Institute of Water Transport Economics and Operation] and the Lengiprorechtrans [Leningrad State Institute for Planning in River Transport] have confirmed the advisability of replacing portal cranes with clamshell-bunker reloaders for the transshipment of bulk cargoes at berths with a freight turnover of 500,000-700,000 tons annually. The use of one reloader instead of two portal cranes yields an annual economic gain of 200,000 rubles, according to the expenditures cited. Crane operators' productivity is doubled, and the number of operators is reduced to three in three-shift work. The cost of manufacturing a reloader will total 1.2 million rubles. An experimental model of it will be set up at the Perm port. It is planned to manufacture three such machines in the 12th Five-Year Plan at the Leningrad Plant imeni S. M. Kirov of the Lenpodyemtransmash.

It is planned to set up a bucket chain-conveyer reloader on shore for unloading bulk materials from ships into cordoned storage areas [prikordonnyye sklady]; its productivity will be 1,500 tons per hour. The technical-economic substantiation established by the Lengiprorechtrans confirms the efficiency of its use with a freight turnover of 1.5 to 2 million tons. There will be 8 to 10 berths for processing bulk materials with such turnover in Ministry of the River Fleet ports (including those at Volgodonsk, Ufa, Kazan, Yaroslavl and Blagoveshchensk). To begin with, it is planned to provide the ports of Saratov and Astrakhan with bucket chain reloaders. The machines will cost 600,000-800,000 rubles, but the economic gain from their introduction will be about 200,000 rubles. Ships will be processed in half as much time, compared with unloading by two portal cranes with a load capacity of 16 tons.

Employment of a complex of equipment utilizing continuous transport machinery is proposed for unloading grain ships at the Moscow Southern port. A reloader with productivity of 600 tons per hour will be built for this complex.

The increased volume of grain shipments resulting from realization of the Food Program has led to the need to increase the throughput capacity of grain berths. The portal cranes now being utilized for these purposes are not

providing the needed productivity. Their utilization entails grain losses as a result of spills from the clamshell and the need for extensive manual cleaning operations in the holds.

In world practice, grain is unloaded by pneumatic machines with a telescopic boom system, installations with a vertical hoist of the screw or scraper type, and reloaders with a bucket belt elevator or a conveyer with a double belt. However, pneumatic machinery requires considerable energy consumption (1.2-1.3 kilowatts per ton of cargo), whereas reloaders equipped with screw or scraper hoists consume just 0.45-0.55 kilowatts per ton.

Taking these circumstances, as well as the opportunities of industry, into account, it is proposed to build a high-productivity grain reloader based on the use of screw conveyers.

In addition to the reloader, the Moscow Southern port transshipment complex will have flexible capacity with an elevator, a conveyer on shore with a receiving bunker, support facilities and maneuvering units. This complex will take the place of two portal cranes with a load capacity of 10 tons, and the amount of cleaning operations will be significantly reduced at the same time. According to calculations of the TsPKB [Central Planning and Design Bureau] of the Ministry of the River Fleet, layovers by ships will be reduced by 25 percent as much when it is put into operation and the number of attending personnel will be reduced, which will yield an annual economic gain of 275,000 rubles. After development and completion of such complexes, the grain transshipment berths of other departments will be fitted out.

It is expedient to set up pneumatic reloaders which ensure dust-free operation without grain losses at the berths with small freight turnover. It is most efficient to utilize them in transshipment of grain from a ship to railroad cars when the productivity of the unloading operation is defined not by the capabilities of reloading machinery, but by the intensiveness of the cars' input. Manufacture of a grain reloader with productivity of 120 tons per hour is being planned for the port of Kalach; its introduction, according to TsPKB estimates, will provide the opportunity to decrease the number of attending personnel by five per shift, and reduce cleaning operations and ship layovers. This will yield an annual economic gain of 110,000 rubles.

The increased shipments of cargo in large-capacity containers lead to the need for specialized machinery to transship them. It is planned to manufacture an experimental model at the Plant imeni S. M. Kirov of the Lenpodyemtransmash in 1987. The load capacity of the machine is 30 tons, the boom to the ship is 19 meters, the boom to the rear is 14 meters, and its average productivity is 20 containers per hour. Introduction of the reloader will make it possible to replace two portal cranes and reduce personnel by one crane operator and two cargo sling handlers. The anticipated economic gain from introduction of the reloader is 266 thousand rubles. It is planned to begin series production in 1989.

A 160-ton vertical boom crane is being made for the transshipment of heavy items. The estimated economic gain from introduction of the new crane is equal to 53,000 rubles. An experimental model should be manufactured by the experimental research plant of the Leningrad Institute of Water Transport.

Together with foreign trade organizations, work is under way to develop more improved floating and portal cranes at foreign plants which will be delivered for river ports in the 12th Five-Year Plan.

The use of cranes to unload coal and other bulk freight from gondolas does not ensure the necessary intensiveness of freight operations. Moreover, it becomes necessary in the process to clean the gondolas, and they are frequently damaged.

A car unloading machine with a cleaning unit is being made to replace the cranes. Its productivity is 400 tons or seven gondolas per hour, the boom of the stockpile conveyer is 27 meters (on both sides), and the height of the stockpile is 18 meters.

Ministry of the River Fleet ports will require 10 such machines, two of which should be manufactured in the 12th Five-Year Plan. The pilot model is expected to be turned over to the Cherepovets port. The economic gain from replacing the cranes with one machine will amount to 160,000 rubles, and the number of workers engaged in unloading will be reduced by nine.

A mechanized bunker is being developed to load trucks with minerals and construction materials, since it is inefficient to use portal cranes for this purpose because of low productivity, extensive losses of materials from spills, and the lack of dispensing devices. Two trucks will be loaded at the same time by means of the mechanized bunker. Estimates made in the TsNIIEVT show that use of a mechanized bunker increases the productivity of a 10-ton crane by 5 percent and the productivity of a 16-ton crane by 25-30 percent as much. At the same time, loading intensiveness is increased by 20 percent as much. The economic gain from introducing one unit is up to 40,000 rubles.

A car loading bunker unit with productivity of 800 tons per hour is being earmarked for combined operation with portal cranes for the purpose of increasing productivity in loading cars with bulk materials. The annual economic gain from the use of one such unit will amount to 106,000 rubles. River ports require 43 of the units.

Belt conveyers on an air cushion are increasing productivity in the transfer of mineral and construction materials to rear storage areas. They are more durable than the ordinary ones and require less inputs of labor and resources for technical maintenance. Experience over 3 years in operating the experimental model at the Leningrad port has corroborated the expediency and efficiency of replacing belt conveyers on supporting rollers with air cushion conveyers. It depends on reconstruction of a line consisting of four conveyers with a total length of 660 meters. The throughput capacity of the berth after this will be increased from 2.7 million to 3 million tons annually. The economic gain will total 110,000 rubles.

A machine based on the MTZ-82 tractor is being developed for cleaning ship holds of the remainders of apatite concentrate. The current method of cleaning holds with the aid of a bulldozer requires the participation of an additional three persons, and in the process, persons work in a dusty environment. The newly developed machine is equipped with side scrapers for removing the apatite from vertical partitions and an airtight cabin with a suction system for the driver. Eight of the machines are required just for the two ports of Perm and Astrakhan. A pilot model will be operating in Perm.

A special machine also is being developed for cleaning railroad and crane tracks of cargo spills; its productivity is 3,160 square meters per hour (when the layer of spilled cargo is 100 millimeters thick). It can operate when the maximum thickness of the spill layer is 700 meters. The economic gain from the use of one machine is 10,000 rubles. Four of the machines are expected to be introduced by 1990. A pilot model will be put into use at the Gorkiy port.

In the 12th Five-Year Plan, it is planned to develop and manufacture six types of clamshells for portal cranes with load capcities of 5, 10 and 16 tons for transshipping metal slag and one type of dual-jaw clamshell for transshipping stone, as well as automatic grips: two types for transshipping medium-weight containers; one type each for an automatic loader of medium-weight containers and a portal crane for large-capacity containers; and four types for portal cranes to handle packages of salt, rolls of paper, vegetable containers, and KamAZ motor vehicles.

The gross economic gain from introduction of new types of clamshells will amount to 226,000 rubles.

Automated control systems for transshipment machinery will be developed.

A complex of instruments, sensors and apparatus to make up automated control systems (SAU) should be developed for machinery which operates in cycles: portal and floating cranes and overhead and clamshell reloaders.

Use of an automated control system will make it possible to increase the operating productivity of portal and floating cranes by 10-15 percent as much and of overhead and clamshell reloaders by 8-12 percent as much; this is achieved by reducing idle times within the cycles and ensuring optimum conditions during the transshipment process. The crane operator's work also will be made considerably easier and power consumption will be reduced by 2-4 percent by optimizing control of the machine.

The plan draft calls for the organization of series production of nine types of transshipment machinery in all by 1990. In addition, the experimental models of five types of transshipping equipment have been scheduled for completion. Realization of this part of the plan will require an expenditure of 4.3 million rubles.

8936
CSO: 1829/185

PORTS AND TRANSSHIPMENT CENTERS

POOR COORDINATION PERSISTS AT VANINO RAIL-FERRY INTERFACE

Moscow PRAVDA in Russian 16 Mar 86 p 3

[Article by PRAVDA correspondent Viktor Khatuntsev, Khabarovsk under the rubric "Topic of the Day": "Once Again--Crash Work"]

> [Text] If the transportation partners--the railroad workers and the sailors--cannot operate harmoniously and precisely, then things come to a standstill and losses result instead of savings. Unfortunately, that is what happened recently in the Vanino Maritime Port.

This is a major transportation center of the northeast part of the country. Freight arriving here on the Transsiberian and the BAM is intended for shipment to Magadan, Kamchatka and other distant regions. Vanino Station receives railroad consists for Sakhalin which are then delivered to the island on the Vanino--Kholmsk ferry crossing. Strictly speaking, the supplying of Sakhalin enterprises and trade organizations depends on this crossing.

"In the first ten days of March," reported Far Eastern Railroad Chief A. Ivanov, "more than a thousand cars with freight for Sakhalin piled up at Vanino Station and on its approaches. The jam arose due to irregular ferry operation. As a result, there are not enough cars for loading."

So then, the cause of the congestion is cited. What does Sakhalin Shipping Company Chief L. Loza say in response to this?

"The plan for car delivery from Vanino to Kholmsk is in order--we are overfulfilling it. For example, the daily plan for the first ten days of March was exceeded by 1.4 cars. It is true that there were some breakdowns on the vessels, but they have been eliminated. We are now taking steps to eliminate the accumulation of cars in Vanino."

A strange picture results: one partner has to detain whole freight trains for days on sidings, and the other cheerfully reports the overfulfillment of plans. How did this discrepancy occur? The fact is that the plans in the shipping company were composed as if for internal departmental well-being without taking into account the actual transportation situation. After all, by the beginning of March there were several hundred cars "tied up" here already, but the shipping company and Minmorflot [Ministry of the Maritime Fleet], estimating the ferry shipping schedule, hardly increased the the

average daily car delivery plan. And only when the smooth surface of this plan was disturbed by the signals of their fellow transport workers did transportation managers make emergency landings in Vanino and Kholmsk. Some speed was finally added to the ferries.

By the way, this is not the first time that questions of similar faults and lack of coordination in the operation of the Vanino Port have arisen. A multitude of cars also accumulated here last winter--the very same ones that were lacking in other sectors of the economy. But at that time the managers of the transportation enterprises could refer to an objective cause: for the first time in many years, the Tatar Strait was packed with solid ice and the icebreakers were unprepared for such heavy loads. But today there are no extreme circumstances in the strait and nothing, it would seem, to hinder normal operations. But on the contrary--crash work again.

"It turned out that one of the ferries was damaged and the engines of two others were starting to break down," said Far Eastern Railroad Deputy Chief Engineer A. Pisarskiy. "It seems like 'objective causes' once again. It appears that the plans of the shipping company took that into account: they are unbooked. And the daily average ferry turnover, in our opinion, is beneath any criticism..."

The sailors have their own complaints with the railroad workers: freight, they say, is shipped to Sakhalin irregularly--sometimes heavily and sometimes lightly... But the so-called coordinated schedule of operation for various links of the transportation center has been in effect at Vanino for a long time already. There is even a coordinating council. It is apparent that coordination exists only on paper, and in fact every transport worker has his own plan and his own interest. A a result, the common state cause suffers.

12821
CSO: 1829/183

PORTS AND TRANSSHIPMENT CENTERS

BUREAUCRACY STYMIES DNEPR RIVER CARBAMIDE SHIPMENTS

Kiev PRAVDA UKRAINY in Russian 18 Mar 86 p 1

[Article by Cherkassy River Port Chief Yu. Bugrimov and PRAVDA correspondent N. Talalay, Cherkassy: "An Issue That Needs Resolution: The Long Route of the Carbamide"]

[Text] This year, the river port will have to increase freight shipping by 9-11 percent. In order to fulfill this task, the river fleet will be replenished with new vessels and the ports and ship repair yards will be further developed and reconstructed...

At the same time, in order to increase shipping the river workers must utilize more fully the potential of all technical equipment that has already been created and make use of ineffective reserves. The fact that such reserves are large can be confirmed by the example of the Cherkassy River Port.

It is well known that the railroad mainlines are overloaded and that an acute shortage of railcars exists. This often leads to the disruption of delivery schedules for economic freight, is reflected in the regularity of production and inflicts losses on the whole economy. After all, the Dnepr River mainline could take upon itself approximately an additional five million tons of freight every year that is now shipped by railcar. It is impossible to deem it normal when thousands of freight trains run along the Dnepr River--after all, this freight could be shipped expediently by river. For instance, the Cherkassy Azot Production Association ships large batches of carbamide for export by railroad for transshipment in Odessa and other Black Sea ports every year. Why not ship the carbamide by water transport--"river-ocean"-type vessels? The question is not a new one and has succeeded, as they say, in acquiring a beard of many years.

As early as 1976, the managers of Soyuzpromeksport [All-Union Association of the USSR Ministry of Foreign Trade] and the Cherkassy Azot Association appealed to the UkSSR Glavrechflot [River Fleet Main Administration] and the Cherkassy River Port with a request to deliver carbamide to Odessa on the Dnepr. The river workers agreed and began preparatory work. They rebuilt the berths in the port, expanded warehouse area and installed a new gantry crane. Using their own manpower, they created a semi-automated attachment that made it possible to load up to 12 tons of light packages onto the vessels at the

same time. Specialists and a team of workers were sent to Odessa to assimilate the technology and experience of forming 50-kilogram sacks of carbamide into 2.5-ton sling pallets.

In short, they prepared seriously and soundly and executed a number of organizational and technological measures. On all of this was spent... five whole years, because many unforeseen barriers had to be surmounted in the course of preparation. Only at the beginning of the last five-year plan were they finally able to organize the experimental shipment of carbamide in various versions of packaging: 50-kilogram sacks and soft single-ton and metal 20-ton containers. These shipments demonstrated that it was expedient and economically justified to ship carbamide to Odessa on the Dnepr.

Up to 180,000 tons can be shipped in one shipping season, and the shipping cost is reduced by 140,000-150,000 rubles compared to railroads. Furthermore, the delivery times for the cargo are reduced, the productivity of freight turnover is increased by two or three times and, naturally, vessel idle time in ports is reduced. And that is still not all: the longshoremen are freed from heavy physical labor and the labor intensity of carbamide shipping is reduced by four times. And especially importantly, 3,000 railcars in short supply are freed up over the shipping season.

In analyzing the results, the interested parties--river workers, chemical-industry workers and sailors--acknowledged that the method of shipping carbamide in soft one-ton containers was the most efficient for all the links of the industrial transportation complex. Therefore, a special process line was built at Azot for packaging the product in such containers. The Odessa port workers assisted the chemical workers by leasing special mechanisms--a tracked crane and four automatic loaders for the process line. The Cherkassy Port was presented at the VDNKh [Exhibition of Achievements of the National Economy of the USSR] and three workers were awarded medals of the exhibition for the development of the technology for receiving carbamide from the chemical workers, loading it onto the vessels and shipping it.

Based on the positive results of the experiment, the management of UkSSR Glavrechflot, the Cherkassy River Port, the Black Sea Shipping Company, the Odessa Maritime Port, the Odessa Railroad and the Azot Association informed the USSR Ministry of Foreign Trade and Soyuzpromeksport of the preparedness to deliver carbamide to Odessa by river transportation and proposed the planning of regular shipping for 1982.

But it did not happen. The initiator of the important matter--Soyuzpromeksport--began, as they say, working backward: they refused to plan the shipping of carbamide on the Dnepr. They refused any and all convincing arguments. The managers of the department did not take into account the large amount of work that was carried out by the river workers, sailors and chemical workers and did not care to take state interests into account as well. After Soyuzpromeksport followed the managers of Azot. Standing up in words for the shipment of carbamide by river transport, in deed they ceased to care whether this shipping took place. Such was also the position of the Ministry of Mineral Fertilizer Production [Minudobreniy].

After all, the USSR Gosplan decree "Measures for the Rationalization of Freight Shipping for 1983" and analogous decrees for 1984 and 1985 ordered Minudobreniy "to provide for the direct water shipment of 25,000 tons of carbamide in soft containers from the Azot P/O [production association] to Odessa" annually. As documents prove, the ministry managers set about executing the decree, but did nothing to fulfill it. There were references to the absence of soft containers. But here are other documents, signed by USSR Gossnab managers, stating that the ministry's application for soft containers for carbamide packaging was fully satisfied...

The question of shipping carbamide by river transport instead of by rail is still not yet resolved. All is drowned in multitudinous and fruitless conferences at various levels and in enough fruitless correspondence to fit in four plump volumes. Over these years, 15,000 railcars that could have and should have served the national economy to great advantage have been lost.

12821
CSO: 1829/183

PORTS AND TRANSSHIPMENT CENTERS

FAR EAST REGIONAL SHIPPING COORDINATION NEEDED FOR AUTOMATION

Moscow VODNYY TRANSPORT in Russian 25 Mar 86 p 2

[Article by A. Artynov, laboratory chief of the Institute of Automation and Management Processes of DVNTs [Far Eastern Science Center] of the USSR Academy of Sciences and scientific manager of the automation of transportation management of the Far East region, under the rubric "Improving Transportation Management: The Contribution of Science": "A Common Point of Support"]

[Text] The chief shortcoming of the transportation management system of the Far East region is departmental disparity, which complicates the coordination of related transport workers and makes the integrated planning and execution of a unified scientific, technical and economic policy for management automation more difficult.

Currently, every type of transport has its own management structure, shipping technology, technical and economic indicators and standards and transport legislation, and this in the final result reduces the speed of freight delivery and increases irrational, counter and short-run shipping, while the utilization of transport and loading and unloading equipment is worsened. The greatest complexities in the organization of shipping arise in the Vanino, Vladivostok, Nakhodka, Vostochnyy Port and Posyet transshipment centers.

It must be stated that thanks to the broad incorporation of the Leningrad experience of related transport workers, approved by the CPSU Central Committee, the volume of freight in the Far East region handled directly grew by 530,000 tons in the 11th Five-Year Plan. The standard time for handling railcars at transport centers based on maritime ports declined by 24 percent over the current five-year plan, which made it possible to free up more than 30,000 cars over the last year alone. Idle time in truck transport in freight operations was reduced by 30 percent. The amount of freight shipped by truck transport through its interconnection with railroads grew by 50,000 tons. The gross handling intensiveness of the Far Eastern Shipping Company, the principal shipping company of the region, grew by more than 30 percent, and vessel idle time declined by 40 percent.

Under modern conditions, however, the forms and methods of the interaction of the various types of transport in the region are in need of more serious scientific study and grounding.

With the aim of increasing the efficiency of transportation management in the region, ASUs [management automation systems] are being created and are functioning for individual types of transport. These operations are being conducted in the Far Eastern Railroad and on the BAM, in the Far Eastern, Primorye, Sakhalin and Kamchatka shipping companies, the truck transport administrations of the region, the Amur River Shipping Company, the Dalryba All-Union Fishing Industry Association and the maritime ports.

Notwithstanding several successes in the planning and incorporation of ASUs in individual types of transportation, their possibilities for improving the operation of the region's transportation overall are insufficiently utilized. This can be explained by the fact that, as a rule, the process of resolving routine tasks, among which accounting and statistics predominate, is being automated. At the same time, the proportion of optimizing tasks, permitting the attainment of the greatest economic saving, is too small. Furthermore, the development of ASUs in related types of transport is being conducted in an uncoordinated fashion.

In the last five-year plan, scientific research and planning work was begun on the creation of automated transportation management systems for the Far East region which was conducted according to the scientific and technical program approved by the State Committee for Science and Technology and USSR Gosplan. In the process of executing this work, a scientific production collective was formed made up of the Institute of Automation and Management Processes [IAPU] of the DVNTs of the USSR Academy of Sciences (lead organization), the Khabarovsk Institute of Railroad Transportation Engineers [KhabIIZhT], Dalmorniiproyekt [Far Eastern Maritime Scientific Research and Planning Institute], the Far Eastern Higher Maritime Engineering School, the Khabarovsk Polytechnical Institute and employees of the DVZhD [Far Eastern Railroad], ports and port stations.

The manpower of these organizations conducted a systematic analysis of the planning and management processes, taking into account the interaction of the region's transport systems, and carried out a number of scientific research operations.

Specifically, a system for the on-line forecasting of shipping on the Vanino--Kholmsk ferry crossing was developed and incorporated. The system makes it possible to forecast railcar traffic from the island to the ferry crossing taking into account the specific features of handling rolling stock, as well as in the opposite direction taking into account the size of the railcar fleet of the Sakhalin Division of the DVZhD and the capabilities of the freight recipients for unloading rolling stock. The economic saving from the incorporation of the system totaled more than 200,000 rubles a year.

The development of the system is now being conducted. The on-line forecasting of the arrival of railcars from the DVZhD yard, and in the future from other rail networks, in the Port of Vanino intended for Sakhalin and from the yard of the Sakhalin Division of the DVZhD intended for the Port of Kholmsk with the subsequent dispatch to the mainland is calculated with it. The forecasting system is utilized for the development of a continuous operating schedule for the ferry crossing in a computer-dialogue mode.

Based on an analysis of the transportation planning and management processes of the region, the structure of an information system was determined along with the amount and enumeration of information, the frequency of its updating, the sources for obtaining it and the users. This work was conducted separately for two levels of the management structure: the regional level (the management of railroads, maritime and river shipping companies, truck transport, civil aviation and others) and the level of transportation centers (ports, port railroad stations, truck transport enterprises and others). The development of a tracking system for freight traffic and rolling stock in the transport center (for example, the Vladivostok Transshipment Center) was reduced to planning and program documentation. Its experimental operation is currently being conducted.

The estimated economic saving from the incorporation of the system in the Vladivostok Transshipment Center will total more than 500,000 rubles a year. The work is being carried out in close collaboration with the Institute of Automation and Management Processes of the DVHTs of the USSR Academy of Sciences, the Vladivostok Maritime Trade Port and Vladivostok Station. Planned in the future is the expansion of system operation to the transportation centers of Vanino, Nakhodka, Vostochnyy Port and Posyet.

The system that has been developed is considered as an information base for the creation of a transshipment-center ASU, the basic principles and aims of the creation of which have been determined and are currently being studied at the planning-documentation level.

The manpower of Dalmorniiproyekt and KhabIIZhT, with the participation of the IAPU of the DVHTs of the USSR Academy of Sciences, has developed the first version of an automated system for the on-line interaction of the railroad and maritime transport of the Far East, by which was realized the exchange of information in computer media between the computer centers of DVZhD (Khabarovsk) and the Vladivostok Maritime Trade Port (Vladivostok) in accordance with models coordinated earlier.

Considerable work on the automation of transportation management is being conducted by the production transportation organizations and enterprises of the Far East in accordance with industry plans for the planning and incorporation of ASUs, as well as by the Council of Economic and Social Development of the CPSU Primorye Kray Committee and the Primorye Kray Council NTO [scientific and technical department]. The results obtained, as well as the availability of the scientific production collective, make it possible to discuss the necessity of the further development of research on the automation of transportation management in the Far East region in the form of an independent economic program in 1986-90.

These proposals were reflected in the recommendations of the All-Union Scientific and Technical Conference "Ways of Improving the Shipping Process and Transportation Management" (Gomel, October 1985), which are supported by the State Committee for Science and Technology and the Scientific Council of the USSR Academy of Sciences, on the integrated problem of the management of transportation processes.

The principal difficulties of conducting scientific research on automating the management of the transportation complex of the Far East region and the incorporation of the results obtained are the absence of a single client for this work, which substantially reduces the dedicated orientation of the work and makes the organization of the research and incorporation of the results obtained more difficult.

A rational way out of the situation would be the creation of an overall transportation organ at the regional level endowed with directive powers for the planning and management of the shipping process in the region. This organ could fulfill the function of client for the development and incorporation of ASUs.

12821
CSO: 1829/183

INTERSECTOR NETWORK DEVELOPMENT

NEWLY IMPORTED TRUCKS MAY BE USED TO CARRY IMPORT GOODS

Moscow IZVESTIYA in Russian 14 Apr 86 p 2

[Response by USSR Deputy Minister of Railways V. Butko to published article, followed by IZVESTIYA editorial staff comment, under the rubric "After an IZVESTIYA Statement": "Just Who Will Decide?: the "Empty Hollow Car" of No 7."]

[Text] The Ministry of Railways, jointly with the Ministry of Foreign Trade and the RSFSR Ministry of Motor Transport, has reviewed the article by Ye. Yakovlev and consider the matter of utilizing the vehicles being delivered to the USSR for the transport of foreign trade goods to be an urgent one.

Available experience in shipping freight in new vehicles, including meat products in refrigerator trucks, even when there are unresolved organizational and commercial matters, has shown the expediency of this method of transport. Organization of the transfer of refrigerator trucks, as well as the "Tatra" and "Avia" vehicles, with loads and under their own power relieves the pressure which now exists on the Chopsko-Batayevskiy rail junction, which will make it possible to increase the shipment of foreign trade goods in the direction in question.

In connection with the foregoing, the MPS [Ministry of Railways] supports the suggestion by the article's author to establish a large specialized self-supporting enterprise near the border for the acceptance and transfer of imported vehicles directly from the manufacturing plants loaded with foreign trade goods for the Soviet Union.

[Signed] V. Butko, USSR deputy minister of railways.

FROM THE EDITORIAL STAFF: The official response from the Ministry of Railways, coordinated with the Ministry of Foreign Trade and the RSFSR Ministry of Motor Transport, satisfies the main point--the matter raised in the article "Gulkiy porozhnyak" [The Hollow Empty Car] needs immediate solution. What does this concern? The fact that two traffic flows head from the border of the USSR deep into the country: trains filled to the limit with foreign trade goods and a large number of powerful trucks that are empty. Combining these flows, unloading the railroad and ending the empty truck runs--this is the goal. It is understood that this is not a simple task, and there are quite a few obstacles on the path to its solution in the form of the

organizational and commercial problems which arise. But our foreign trade ties with CEMA countries are firm and growing steadily, and it is simply impossible to imagine how the impractical consumption of fuel will end if this problem is not resolved in the very near future.

Meanwhile, it is impossible to understand from the Ministry of Railways response just who should take the lead in the struggle against the sheer nonsense and wastefulness. In the opinion of the RSFSR Ministry of Motor Transport, which sent a response to the editorial staff signed by Comrade Shevchuk, the deputy minister, it is necessary to set up a specialized enterprise in Uzhgorod along the UkSSR Gossnab line for the acceptance and crossing of imported vehicles, to which matters concerning the acquisition of vehicle equipment directly in the CSSR and Hungary and the centralized crossing of it into the European part of the country for Soviet consignees are to be transferred completely. Such a system will make it possible to load motor transport in Czechoslovakia and Hungary with import goods and eliminate the intermediate transfer of vehicles. But perhaps there are other alternatives as well? Judging by the official responses, however, the ministries are not proceeding beyond approval of the proposals made for the time being.

One point is clear: it is impossible to engage in delays and avoid accepting solutions where experience itself puts forward these solutions. Doing the work, demonstrating initiative, coming out resolutely against sluggishness in economic construction, and making use of socialist planned economy to the maximum extent--this is one of the basic requirements of the 27th CPSU Congress, reflected in its decisions.

The editorial staff of IZVESTIYA addresses the following request to the USSR Gosplan: review the entire range of questions connected with imported trucks coming into our country and look for a solution of the problem which will eliminate or at least substantially reduce the runs by empty vehicles.

8936
CSO: 1829/184

INTERSECTOR NETWORK DEVELOPMENT

CONTINUING PROBLEMS IN TRANSPORTING OVERSIZED LOADS

Moscow PRAVDA in Russian 28 Apr 86 p 2

Article by Aleksandr Androshin under the rubric "Economic Review": "Oversized"]

[Text] The Egyptian pyramids, the temples of ancient Greece, the majestic buildings of the Middle Ages, and finally, the monuments like the Alexander column erected in the city on the Neva... History tells little about how they succeeded in moving in a horizontal and vertical plane, or in other words, transporting to a destination, the gigantic stone and marble blocks and granite slabs weighing hundreds of tons necessary for erecting these structures. It is known only that such work took years, and sometimes decades. The problem of transporting oversized items has turned out to be of rare persistence. And it deserves the most serious attention today as well.

Superheavy Loads on the Way

Not long ago residents of the city of Dzerzhinsk in Gorkiy Oblast observed with surprise that "Uragan" truck tractors pulling trailers loaded with unusual equipment were crawling out the gates of the local chemical machine building plant from time to time. Just the weight of each one of them, together with the machinery for transporting, exceeded 600 tons, and the entire truck train was as much as 200 meters long. The impressive dimensions and general appearance of the caravan, resembling a huge caterpillar, suggested the thought: is it a new space vehicle heading for the launch pad? But no, it was taking powerful fractionating columns for the Tobolsk Petrochemical Combine to the bank of the Oka for a river berth.

However, the caravans with oversized loads are not an altogether infrequent phenomenon. Displaying great skill and resourcefulness, railroad and water transport workers and vehicle drivers carry not only chemical installations, but nuclear reactors, powerful transformers, turbine rotors for power stations, coke ovens [kamery], and unique construction machinery by the same method... At times they organize the most complicated transport operations for delivering important freight to a destination. But is this trouble always

justified? And in general, wouldn't it be easier to send those same columns "in sections" ["rossypyu"], reduced to ordinary dimensions, by rail? In other words, the same way that we have proceeded to ship nearly all oversized loads until recently.

But times have changed. Let us read the decisions of the 27th CPSU Congress carefully. After all, it is planned to increase the output of equipment and production lines [tekhnologicheskiye linii] of higher single-unit capacity in complete set and unitized-complete set versions in just chemical and petroleum machine building by 1.3 to 1.5 times as much. The Basic Directions also have set this task: to consistently carry out further industrialization of construction production, turning it into a unified process of erecting projects of plant-manufactured components. And for this purpose, to shift to complete-set delivery of equipment to construction sites in larger units...

In a word, the output of equipment of a higher unit capacity and so-called high degree of plant fabrication is not a whim of enterprises at all. It is quite different: the natural striving to accelerate an increase in the efficiency of capital construction and production in the most diverse sectors of the national economy. The use of such equipment not only reduces overall expenditures to build industrial projects to a significant degree, but also reduces the production cost of future output and speeds up the commissioning of new production facilities. Moreover, by being delivered in assembled form or in larger units, it is usually more reliable and remains in service longer. So shipments of the columns for the Tobolsk petrochemical workers completely assembled have made it possible to reduce labor-intensiveness in construction of the enterprise to almost half as much. And the economic gain from this same transport operation totaled more than 3 million rubles...

From Door to Door

So the question today is not whether we should transport or not transport oversized loads. The time has come to put it another way: how is it to be transported?

For years we have used rail transport to deliver large-sized and heavy loads. Even now it provides more than 90 percent of all such transport. Workers on the steel mainlines have replaced a good many old bridges, reinforced line superstructure over a great distance, and devised special rolling stock in order to "alleviate" the existing rigid dimension restrictions and strictly limited axle loads. Under borderline conditions, railroad workers are carrying out the most complicated operations to transport heavy-duty equipment by making use of new methods.

However, under conditions of sharply increased freight traffic, reduced reserves of throughput capacity, and expansion of double-tracked sections, it is more and more difficult for workers on the steel mainlines to provide for oversized transport, especially as the volume is increasing from year to year. For this very reason, there was an interruption in the course of delivering a nuclear reactor vessel for the Armenian AES [nuclear power station]. In order to give it "the green light," they canceled 40 freight trains and delayed a significant number of passenger trains on the North

Caucasus Railroad. The normal operation of the main track of the mainline from the Tikhoretsk station to Samur was paralyzed for an extended period. The losses are also high on other railroads because oncoming traffic is stopped in connection with the passage of oversized loads . Let us add that the amount of freight with mass and dimensions which generally preclude transport on the steel mainlines has been increased. And shipping it "in sections" also is impossible in accordance with the conditions of certain industrial processes. So who will take "custody" of such equipment?

"We suggest a combined transport by waterway and motor vehicle," says N. Akulinushkin, chief of the All-Union Association "Spetstyazhavtotrans" of the RSFSR Ministry of Motor Transport. "Thousands of machines and assemblies with weight and dimensions which exceed the limits of railroad workers' capabilities have been delivered this very way in recent years. Enterprises of over 45 ministries and departments are among our customers. And the economic gain from these shipments exceeds hundreds of millions of rubles. A higher achievement of the association? Even if it were only the delivery of those same fractionating columns to Tobolsk."

In fact, this transport operation has become an important test for drivers of the Gorkiy subunit of Spetstyazhavtotrans. In particular, they transported one of the units from Dzerzhinsk to the berth on the Oka on a road encrusted with ice. How many efforts were exerted then by persons who could not put off delivery of important freight any further in order to ensure that the tires of the 224-wheel trailer adhered to the slippery road! They spread sand on the road, reinforced the banks, knocked off the ice...

Strictly speaking, each operation like this is essentially an equation with many unknowns for the specialists of the relatively new association, established several years ago. By the way, they not only organize the shipment of heavy equipment over the country by motor transport, but also plan combined shipments and carry out loading and unloading operations to the extent of manufacturing the necessary devices and accessories. At the same time, as a rule, Spetstyazhavtotrans pursues the objective of delivering freight "from door to door" at the lowest cost and taking it from the railroad if possible. And a great deal depends here on an alliance with seamen and river workers. Incidentally, the association was recently given the status of a general contracting organization for shipments of large-sized heavy equipment in the country by combined waterway-motor transport. Need it be said that this provides definite conveniences for customers? They conclude a single contract for the entire range of operations with the participation of maritime and river shipping companies.

As we see, considerable progress has been made in an important direction. This year alone, the association will deliver more than 700,000 tons of different oversized equipment to customers. The dynamics of the volume of freight shipments are growing conmtinuously, both in the weight indicators and the length of the routes. But here is the paradox: 20 percent of the demand for such shipments is being met at present... Why aren't we keeping in step with the time?

The Difficult Trips by the "Uragans"

One of the reasons, it appears, lies in the extent of the caravan workers' technical equipment. I remember several years ago, when one of the country's first especially large oversized loads was transported, the manager of the planning and design bureau of the Spetstyazhavtotrans Association, V. Pavlov, expressed the hope for the appearance soon, for example, of heavy-load trailers having unique modular sections, with which it is not difficult to join carriers of practically unlimited load capacity with standard wheel loads by means of couplings between them. Or self-propelled tracked vehicles with an operating [aktivnyy] drive, maneuverable and capable, for example, of turning around in place and not requiring paved roads. Finally, so-called multiple-carrier [mnogoopornyye] vehicles with a load capacity of up to 3,000 tons.

The years have passed. And what happened? Powerful vehicles such as this really have appeared on the roads. But unfortunately, not in our country. But what do the caravan drivers have at their disposal in that case?

"Basically, the proven "Uragan" truck tractors from the Minsk Motor Vehicle Works," reports V. Pavlov. "By the way, we are allocated only one or two such tractors a year... And we are just dreaming at present about the new wheeled vehicle designed for towing heavy-load trailers--it has already been developed in Kurgan and is second to none of the best foreign vehicles. The dates named for series production of a such a giant by the USSR Minavtoprom [Ministry of the Automotive Industry] are still very far off."

The situation is no better with rolling stock, either. The trailers which industry is offering have been designed basically for delivering construction and tracked equipment, and have limited load capacity and short platforms. True, the Chelyabinsk Tractor Trailer Plant recently began making the long-awaited modular transporters with a load capacity of 30 tons. The demand for them by only Spetstyazhavtotrans is numbered in the dozens. Meanwhile, the enterprise is able to turn out...one unit per year. Finally, the association's drivers have not been provided now, just as 10 years ago, with sufficient elementary loading and unloading equipment, particularly cranes with high lifting capacity. There aren't enough transshipment and support [opornyy] points for production bases in the rayons of Siberia, Kazakhstan and the Far East for technical maintenance and repair of rolling stock, and finally, the enterprise lacks its own experimental testing plant to manufacture accessories. But after all, it is faced with the task of carrying freight weighing 1,000 or 3,000 tons or more...

The proportion of shipments taken by drivers and waterway workers from the steel mainlines is still small because some of our ministries prefer to use the tracks. Precisely for this reason, for example, large enterprises such as the Dzerzhinsk Chemical Machine Building Plant or Petrozavodmash, which have specialized shops for producing large-sized devices and mechanized river berths equipped with powerful cranes, send more than half the orders by railroad "in sections," knowing that it is not economical. Even though the addressees often are located right on waterways.

To all appearances, certain other ministries, in addition to the Ministry of Chemical and Petroleum Machine Building, continue to be oriented toward preferential use of the railroad. Not because, let us say, designers are trying to "register" the diameters of domestic nuclear reactors to railroad dimensions as before, although they are designing such equipment with significantly larger dimensions abroad. In pursuing departmental interests, certain ministries have been holding imported transport equipment, which foreign firms usually sell as a unit with heavy assemblies, "tied to the post" for a long time after it is used once. But after all, for Spetstyazhavtotrans, it has not turned out to be unnecessary at all.

Finally, in speaking of prospects for the association, it should be stressed that its alliance with waterway and railroad workers requires new forms of administration. In particular, perhaps, they have to think about establishment of an intersectorial association, bringing accounting in order, and planning similar shipments.

There is no way to escape the problem of oversized loads, whether we want them or not. And the more acutely we are reminded of it, the more noticeably our industry will be accelerated. After all, the shipment of entire enterprises and power generating complexes by transport unit-modules is on the agenda--after being delivered to a destination and installed on foundations, they will be able to be put to work immediately. So people soon will be erecting structures which have to amaze their descendants no less than the majestic structures of ages gone by.

8936
CSO: 1829/184

INTERSECTOR NETWORK DEVELOPMENT

INTERSECTOR TRANSPORT COORDINATING BODY PROPOSED FOR FAR NORTH

Moscow VODNYY TRANSPORT in Russian 22 May 86 p 3

[Article by L. Timokhov, secretary of the party committee of the AANII [Arctic and Antarctic Scientific Research Institute] and doctor of physico-mathematical sciences, and N. Mustafin, manager of a department and winner of the USSR State Prize: "A Program for the Arctic: Coordination of Actions by Different Ministries and Departments Is on the Agenda"; capitalized passages published in boldface.]

[Text] The CPSU Program approved by the 27th Congress emphasizes that it is necessary to combine long-term, five-year and annual plans organically, to raise the scientific level of planning, to reinforce plan discipline, to ensure the priority of state interests, and to resolutely suppress any manifestations of jurisdiction and precedence, red tape and voluntarism.

In light of these requirements, the proposals made by the Order of Lenin Arctic and Antarctic Institute (AANII), published in the VODNYY TRANSPORT article "Efficient Coordination Is Needed " on 8 May 1983, are becoming more urgent in nature. The difficult events 5 months following publication of this article during navigation in the Eastern Arctic corroborated the validity of the problems raised in it and revealed many cases of a lack of interdepartmental conformity and coordination of actions. The proposals made in the article were aimed at working out a unified interdepartmental and comprehensive special-purpose program and an agreement complementing it on creative collaboration of executing organizations to develop year-round navigation in the Arctic. The point is to ensure intersectorial integration of forces to resolve the important tasks which have not only transport but economic importance with the least possible expenditures.

What was the fate of these proposals? While Norilsksnab reacted positively to them with a telegram to the AANII on the second day after the article's publication, the Ministry of the Maritime Fleet DID NOT DO THIS FOR 2 YEARS. THE IMPRESSION IS CREATED THAT THE MMF [Ministry of the Maritime Fleet] DID NOT PAY ATTENTION TO WHAT WAS PUBLISHED BY ITS CENTRAL PRESS ORGAN ON SUCH AN IMPORTANT STATE QUESTION.

The AANII proposals have received the support of 20 large organizations in the country. They include the Council for the Study of Productive Forces of the USSR Gosplan, the Leningrad Obkom of the CPSU, Soyuzmorniiproyekt [State Planning, Design and Scientific Research Institute of Marine Transportation of the Ministry of the Maritime Fleet], the Sakhalin Shipping Company, the Leningrad TsPKB [Central Planning and Design Bureau], the Main Administration of Aviation Work and Transport Operations of the Ministry of Civil Aviation, and the Murmansk and Northern territorial administrations of the Goskomgidromet [State Committee for Hydrometeorology and Environmental Control]. We believe that these proposals are worthy of attention by ministers--T. B. Guzhenko (Ministry of the Maritime Fleet), L. V. Bagrov (MRF [Ministry of the River Fleet]), B. P. Bugayev (MGA [Ministry of Civil Aviation]), A. S. Systsov (Ministry of the Aviation Industry) and I. S. Belousov (Minsudprom [Ministry of the Shipbuilding Industry]). Their authoritative opinion can mark the beginning of practical actions to decisively improve interdepartmental agreement and coordination of long-term programs for Arctic transport development.

We have been convinced of a paradoxical fact in our experience: hundreds of specialists in ministries and their subordinate organizations have been engaged in developing intersectorial comprehensive special-purpose programs. And at the same time, nearly none of the staff members who would be charged with preparing matters related to interdepartmental linkup of the programs have been released from other duties. If middle-level managers do not make up their minds to select specialists for the linkup, which requires high skill and much work, then perhaps this should be done at the level of ministers or their deputies? In either event, but an interdepartmental working group of highly skilled specialists is necessary in such an important matter.

Available programs are narrowly departmental in nature, inadequately linked or not linked at all between sectors and not always coordinated among organizations of the same ministries and departments. This also relates to programs on the aforementioned problem of the Ministry of the Maritime Fleet, Ministry of the River Fleet, and Ministry of Civil Aviation. The development of water, air, rail and motor transport in the Arctic and the Far North needs a more comprehensive economic and socioeconomic basis, taking the requirements of a systems approach into full consideration.

There also is a significant lag in development between the technical facilities of hydrometeorological support and the high level of growth of the icebreaker transport fleet.

The disproportion and lack of balance of the research and development programs are already reducing the efficiency of operations as a whole at present, and in the future they may inflict even more harm. For optimum operation, the Northern Sea Route must bring about coordinated proportionate development of the basic links in the system of scientific and technical support: scientific hydrometeorological, navigation and hydrographic, communications, icebreaking, and aircraft. A lag in any of these reduces efficiency in the operation of the entire system.

The most resources for increasing efficiency and reducing the length of time for operations are concentrated in the linkups between departments and separate organizations. For this reason, it is necessary to continue efforts to discipline the activity of the different departments and organizations in the Arctic within the framework of a unified state program. It would seem that it is not difficult to make up a compiled summary [kompilyativnaya svodnaya] based on the particular programs of individual organizations. But, from the viewpoint of businesslike coordination of operations, it can become an abortive document. Such an easy path for the matter is unacceptable. The proposals of the Arctic and Antarctic Institute involve a viable, comprehensive special-purpose program. It can be established only by means of organic coordination of the objectives and tasks of different departments and organizations. And active work jointly with these organizations, creative "roundtable" meetings, the overcoming of contradictions, mutual assistance and mutual concessions are necessary for this.

Negligence in organizing operations and delay in introducing the achievements of scientific and technological progress result in especially large losses in the Arctic. The harsh environment, with many dangerous meteorological, ice and hydrological problems, does not forgive any miscalculation. Integration of forces is important in regions of the country that have long been developed, but it is doubly important in the Arctic. Because responsibility for developing the Arctic has been dissolved among a large number of organizations, interdepartmental hummocks which are sometimes more terrible than those made of ice have emerged.

It is not always fair to lay the blame for a ChP [extraordinary incident] in the polar seas on the elements. Experience of many years in scientific and operational support for Arctic navigation shows that the system of fleet administration in collaboration with science considerably decreases and sometimes even prevents harm from natural calamities. Not only transport and technical facilities and construction projects, but organizational systems as well, should be established in the Arctic with sufficient durability to withstand any tests they are subjected to by the rigorous Arctic environment.

It is necessary to set up an intersectorial automated data system for the Arctic region. This also will be the first stage in establishing an ASU [automated control system] for maritime and river operations in the Arctic. These and many other matters should be reflected in the comprehensive special-purpose program.

We also consider it expedient to examine the question of establishing the "Arktika" intersectorial scientific and technical complex. This would help to overcome the departmental dissociation in resolving tasks of state importance in the Arctic (year-round navigation along the entire Northern Sea Route, opening up the mineral resources on the shelves of the Arctic seas, and so forth).

The question of technical equipment for research on the seas of the USSR, the World Ocean, and the Arctic and Antarctic is of no small importance for the maritime fleet and other maritime sectors of the national economy. Departmental dissociation in developing and producing equipment for oceanic research also is here at present. A unified technical policy for all departments is not being carried out in this field, as a result of which the considerable funds being spent are not yielding the gain that is due.

8936
CSO: 1829/184

END